



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

18000 block of US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.353354482 Longitude: -88.550551339

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.353354482 Longitude: -88.550551339

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS VL1-2 AND VL1-3 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-1. SEE FIGURE 3-1 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28640 and MC28642

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

*Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))*

Company Name: Illinois Department of Transportation

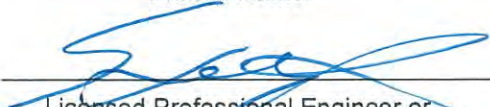
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-1**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL1-2(0.5-1.5)-022714	VL1-3(0.5-1.5)-022714	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/27/2014	2/27/2014	
Location ID	VL1-2	VL1-3	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.4	9	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	2.5	1.8 J	30
Carbon disulfide	2.9 J	ND	9000
Ethylbenzene	1.3 J	ND	13000
Methylene chloride	2 J	2.6 J	20
Toluene	5 J	3.3 J	12000
Xylene (Total)	3	1.9 J	5600
<b>SVOCs (ug/kg)</b>	None Detected		
<b>Total Metals (mg/kg)</b>			
Antimony, Total	ND	0.52 J	5
Arsenic, Total	8.1	6	11.3 / 13
Barium, Total	68.2	23.1	1500
Beryllium, Total	0.51	0.12 J	22
Cadmium, Total	0.096 J	ND	5.2
Calcium, Total	5900	110000	---
Chromium, Total	17.2	28.8	21
Cobalt, Total	7.8	3.7 J	20
Copper, Total	17.7 J	14.5	2900
Iron, Total	18800	10600	15000 / 15900
Lead, Total	17.5	184	107
Magnesium, Total	4890	50900	325000
Manganese, Total	249 J	344 J	630 / 636
Mercury, Total	0.034 J	0.011 J	0.89
Nickel, Total	17.4	9.3	100
Potassium, Total	777	629	---
Silver, Total	0.17 J	ND	4.4
Sodium, Total	1740	928	---
Thallium, Total	0.36 J	ND	2.6
Vanadium, Total	32.9	15.8	550
Zinc, Total	52.2 J	42.7 J	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	0.0038 J	ND	0.05
Barium, TCLP	0.54	0.27 J	2
Cadmium, TCLP	0.0014 J	0.0009 J	0.005
Chromium, TCLP	ND	0.0021 J	0.1
Cobalt, TCLP	0.029 J	0.0056 J	1
Copper, TCLP	0.0076 J	ND	0.65
Iron, TCLP	0.026 J	0.046 J	5
Lead, TCLP	0.0077 J	0.0027 J	0.0075
Manganese, TCLP	7.2	1.9	0.15
Nickel, TCLP	0.025 J	0.024 J	0.1
Zinc, TCLP	0.031 J	0.025 J	5

**Summary Table of ISGS Site No. 2792-1**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL1-2(0.5-1.5)-022714	VL1-3(0.5-1.5)-022714	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/27/2014	2/27/2014	
Location ID	VL1-2	VL1-3	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.052	0.014	0.05
Barium, SPLP	0.46 J	0.12 J	2
Beryllium, SPLP	0.0029 J	0.0009 J	0.004
Cadmium, SPLP	0.0013 J	ND	0.005
Chromium, SPLP	0.1	0.036	0.1
Cobalt, SPLP	0.027 J	0.008 J	1
Copper, SPLP	0.093	0.038	0.65
Iron, SPLP	90.8	27.9 J	5
Lead, SPLP	0.29	0.11	0.0075
Manganese, SPLP	1.5	0.54	0.15
Mercury, SPLP	0.0001 J	ND	0.002
Nickel, SPLP	0.082	0.027 J	0.1
Silver, SPLP	ND	0.0012 J	0.05
Zinc, SPLP	0.34	0.12	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28640

Sampling Date: 02/27/14

Report to:

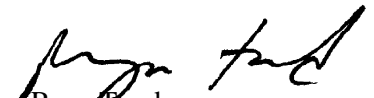
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **305**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-20	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63583.D	1	03/05/14	KD	n/a	n/a	MSM2228

Run #1	Initial Weight	Final Volume
Run #2	4.30 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.7	ug/kg	
71-43-2	Benzene	2.5	0.66	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.47	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.80	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.1	ug/kg	
75-15-0	Carbon disulfide	2.9	6.6	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.29	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.6	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.6	0.75	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.35	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.55	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.60	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.55	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.55	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.56	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.30	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.35	ug/kg	
100-41-4	Ethylbenzene	1.3	2.7	0.92	ug/kg	J
591-78-6	2-Hexanone	ND	13	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.6	0.72	ug/kg	
75-09-2	Methylene chloride	2.0	2.7	0.71	ug/kg	J
100-42-5	Styrene	ND	6.6	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.52	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	5.0	6.6	0.27	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-20	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.76	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	3.0	2.7	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.10	22	ug/kg	JN
75-55-8	Aziridine, 2-methyl-	8.14	9.5	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	9.17	7.5	ug/kg	JN
110-82-7	Cyclohexane	9.92	7.8	ug/kg	JN
142-82-5	Heptane	10.51	7.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	11	ug/kg	JN
	Total TIC, Volatile		65.1	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
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J = Indicates an estimated value  
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# Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-20	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37285.D	1	03/06/14	KR	03/03/14	OP37037	MSR1376
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-20	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.6	ug/kg	
84-66-2	Diethyl phthalate	14.7	280	14	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	18.2	280	10	ug/kg	JB
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	79%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

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## Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-20 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 87.6
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	81%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5800	ug/kg JN
	Total TIC, Semi-Volatile		5800	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.58  
4

# Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-20	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	8.1	0.87	0.18	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	68.2	4.4	0.063	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.51	0.35	0.021	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.096 B	0.35	0.037	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	5900	440	5.5	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	17.2	0.87	0.083	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	7.8	4.4	0.041	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	17.7	2.2	0.48	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	18800	8.7	0.76	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	17.5	0.87	0.15	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	4890	440	4.5	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	249	1.3	0.035	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.034 B	0.035	0.0076	mg/kg	1	03/04/14	03/05/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	17.4	3.5	0.038	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	777	440	7.5	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.17 B	0.44	0.11	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	1740	440	2.9	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.36 B	0.87	0.12	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	32.9	0.87	0.12	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	52.2	1.7	0.14	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16810
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22576
- (4) Prep QC Batch: MP22588

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-20	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.6		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

4.58  
4

## Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-20A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0038 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.54	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0014 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.029 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0076 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.026 B			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0077 B	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	7.2			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/06/14	SA SW846 7470A <sup>1</sup>
Nickel	0.025 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.031 B			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16813
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22590
- (4) Prep QC Batch: MP22593

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.59  
4

## Report of Analysis

<b>Client Sample ID:</b> VL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-20B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.052		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.46 B		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0029 B		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0013 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.10		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.027 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.093		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	90.8		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.29		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.5		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 B		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.082		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.34		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16805
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22577
- (4) Prep QC Batch: MP22582

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.60  
4

**CHAIN OF CUSTODY**

Accutest Laboratories of New England  
 495 Technology Center West, Building One  
 TEL: 508-481-6200 FAX: 508-481-7753  
 www.accutest.com

Client / Reporting Information Company Name: <b>Weston Solutions</b> Street Address: <b>750 E. Banker Lt Ste 500</b> City: <b>Norwich Hills IL</b> State: <b>IL</b> Zip: <b>60001</b> Project Contact: <b>S. Babinsu Kumar</b> Phone #: <b>847-918-4018</b> Fax #: <b>-4055</b> Sampler(s) Name(s): <b>T. Wells</b> Phone #: <b>847-918-4130</b>												Project Information Project Name: <b>IRDT-048</b> Billing Information (if different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project Manager: _____ Attention: _____ PO#: _____												Requested Analysis (see TEST CODE sheet) VOCs SVOCs Total Metals TCU/PC/P/MP Metals PH												Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB - Equipment Blank RB - Rinse Blank TB-Trip Blank											
Accutest Sample #	Field ID / Point of Collection	MEQ/MDI Vial #	Date	Time	Sampled by	Matrix	# of bottles	RCU	INCH	INOC	INOC4	NDNE	D3 Water	MEDH	ENCORE	Biothane	LAB USE ONLY																														
-1	VLI-1(0.5-1.5)-022714		2-27-14	0815	TW	S	3																																								
-2	VLI-1(0.5-1.5)-022714			0815																																											
-3	ALI-1(0.5-1.5)-022714			0835																																											
-4	ALI-2(0.5-1.5)-022714			0855																																											
-5	ALI-3(0.5-1.5)-022714			0910																																											
-6	ALI-4(0.5-1.5)-022714			0925																																											
-7	ALI-5(0.5-1.5)-022714			0940																																											
-8	ALI-6(0.5-1.5)-022714			1000																																											
-9	REI-1(0.5-1.5)-022714			1015																																											
-10	REI-2(0.5-1.5)-022714			1030																																											
-11	ALI-7(0.5-1.5)-022714			1040																																											
-12	ALI-8(0.5-1.5)-022714		2-27-14	1055	TW	S	3											14A,																													
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Approved By (Accutest PM): / Date: _____												Data Deliverable Information <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary												Comments / Special Instructions																							
Relinquished by Sampler: <b>1 Timothy A. Wall</b> Date Time: <b>2-28-14/1455</b> Received By: <b>Chen July 2/28/14 2:54</b> Relinquished By: _____ Date Time: _____												Relinquished by Sampler: <b>3 FP</b> Date Time: <b>3/1/14 10:00</b> Received By: _____ Relinquished By: _____ Date Time: _____												Relinquished by Sampler: _____ Date Time: _____ Received By: _____ Relinquished By: _____ Date Time: _____																							
Relinquished by: _____ Date Time: _____ Received By: _____ Relinquished By: _____ Date Time: _____												Custody Seal # _____ <input type="checkbox"/> Intact     Preserved where applicable <input type="checkbox"/> Not intact     _____ On Ice: <input checked="" type="checkbox"/> Cooler Temp: <b>0.5° 0.5° 1.0°</b>												CHICAGO SC																							

51  
5

Client / Reporting Information Company Name: <u>Western Solutions</u> Street Address: <u>750 E. Bunken Ct - Ste 500</u> City: <u>Norren Hills IL</u> State: <u>IL</u> Zip: <u>60061</u> Project Contact: <u>S. Babusukumar</u> E-mail: _____ Phone #: <u>847-918-4018</u> Fax #: <u>-4055</u> Sampler(s) Name(s): <u>T. Williams</u> Phone #: <u>847-918-4130</u>		Project Information Project Name: <u>IDOT-048</u> Street: _____ Billing Information (If different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project Manager: _____ Attention: _____ PO#: _____				Requested Analysis (see TEST CODE sheet) VOCs SVOCs Total Metals TELP/SLP Metals PH										Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIO - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank					
Accutest Sample #	Field ID / Point of Collection	MECH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	IC	NH3	PHOS	PERCH	NONE	DI WHIST	MEDH	ENDORE	Bivalent	LAB USE ONLY				
-13	AL1-11(0.5-1.5)-022714		2-27-14	1155	TW	S	3										X	X	X	X	X
-14	AL1-11(0.5-1.5)-022714D			1155																	
-15	AL1-12(0.5-1.5)-022714			1215																	
-16	AL1-13(0.5-1.5)-022714			1225																	
-17	AL1-14(0.5-1.5)-022714			1245																	
-18	AL1-15(0.5-1.5)-022714			1300																	
-19	AL1-16(0.5-1.5)-022714			1320																	
-20	AL1-2(0.5-1.5)-022714		2-27-14	1335	TW	S	3											X	X	X	X
Data Deliverable Information																		Comments / Special Instructions			
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TJA data available VIA Lablink</small>			Approved By (Accutest PM): / Date: _____			<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>										_____ _____ _____					
Sample Custody must be documented by log each time samples change possession, including courier delivery.																					
Relinquished by Sampler: <u>1 Timothy A. Walsh</u>		Date Time: <u>2-28-14 / 1455</u>		Received By: <u>[Signature]</u>		Relinquished By: <u>[Signature]</u>		Date Time: <u>2/28/14 2:58</u>		Received By: <u>2</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>[Signature]</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>4</u>			
Relinquished by: <u>3</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>3</u>		Relinquished by: <u>4</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>4</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>4</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>4</u>			
Relinquished by: <u>5</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>5</u>		Relinquished by: <u>5</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>5</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>5</u>		Date Time: <u>2/28/14 10:00</u>		Received By: <u>5</u>			
Custody Seal # <input type="checkbox"/> Intact     Preserved where applicable <input type="checkbox"/> On Ice     Cooler Temp.																					

5.1  
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MC28640: Chain of Custody

Page 2 of 3



Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28642

Sampling Dates: 02/27/14 - 02/28/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **306**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	VL1-3(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28642-1	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63613.D	1	03/06/14	KD	n/a	n/a	MSM2230
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.83 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.2	ug/kg	
71-43-2	Benzene	1.8	0.57	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.86	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.78	ug/kg	
591-78-6	2-Hexanone	ND	11	0.86	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.61	ug/kg	
75-09-2	Methylene chloride	2.6	2.3	0.60	ug/kg	
100-42-5	Styrene	ND	5.7	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	3.3	5.7	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL1-3(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28642-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.65	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	1.9	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.10	17	ug/kg	JN
109-66-0	Pentane	6.49	14	ug/kg	JN
922-65-6	1,4-Pentadien-3-ol	11.18	6.7	ug/kg	JN
	Total TIC, Volatile		37.7	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> VL1-3(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28642-1	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37324.D	5	03/10/14	KR	03/03/14	OP37042	MSR1378
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	59	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2600	67	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2600	76	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2600	430	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5300	660	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2600	330	ug/kg	
95-48-7	2-Methylphenol	ND	2600	100	ug/kg	
106-44-5	4-Methylphenol	ND	2600	130	ug/kg	
88-75-5	2-Nitrophenol	ND	2600	70	ug/kg	
100-02-7	4-Nitrophenol	ND	5300	490	ug/kg	
87-86-5	Pentachlorophenol	ND	2600	190	ug/kg	
108-95-2	Phenol	ND	1300	75	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2600	66	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2600	65	ug/kg	
83-32-9	Acenaphthene	ND	530	70	ug/kg	
208-96-8	Acenaphthylene	ND	530	53	ug/kg	
120-12-7	Anthracene	ND	530	63	ug/kg	
56-55-3	Benzo(a)anthracene	ND	530	68	ug/kg	
50-32-8	Benzo(a)pyrene	ND	530	57	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	530	66	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	530	53	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	530	80	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	66	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	54	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	71	ug/kg	
106-47-8	4-Chloroaniline	ND	2600	66	ug/kg	
86-74-8	Carbazole	ND	530	62	ug/kg	
218-01-9	Chrysene	ND	530	65	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	62	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	80	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	95	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	81	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL1-3(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28642-1	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	68	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	75	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	70	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2600	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2600	66	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	530	63	ug/kg	
132-64-9	Dibenzofuran	ND	530	73	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	41	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	66	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	76	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	49	ug/kg	
206-44-0	Fluoranthene	ND	530	72	ug/kg	
86-73-7	Fluorene	ND	530	70	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	82	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	76	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2600	660	ug/kg	
67-72-1	Hexachloroethane	ND	1300	63	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	530	58	ug/kg	
78-59-1	Isophorone	ND	1300	61	ug/kg	
91-57-6	2-Methylnaphthalene	ND	530	67	ug/kg	
88-74-4	2-Nitroaniline	ND	2600	66	ug/kg	
99-09-2	3-Nitroaniline	ND	2600	140	ug/kg	
100-01-6	4-Nitroaniline	ND	2600	66	ug/kg	
91-20-3	Naphthalene	ND	530	84	ug/kg	
98-95-3	Nitrobenzene	ND	1300	71	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	75	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	79	ug/kg	
85-01-8	Phenanthrene	ND	530	71	ug/kg	
129-00-0	Pyrene	ND	530	62	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	73	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL1-3(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28642-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.1
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	82%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.69	5300	ug/kg	JN
	Total TIC, Semi-Volatile		5300	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> VL1-3(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28642-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.52 B	0.91	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.0	0.91	0.19	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	23.1	4.6	0.066	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.12 B	0.37	0.022	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.039 U	0.37	0.039	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	110000	4600	57	mg/kg	10	03/04/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	28.8	0.91	0.087	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.7 B	4.6	0.043	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	14.5	2.3	0.51	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	10600	9.1	0.80	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	184	0.91	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	50900	460	4.7	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	344	1.4	0.037	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.033	0.0072	mg/kg	1	03/06/14	03/06/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	9.3	3.7	0.040	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	629	460	7.8	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	928	460	3.0	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.8	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	42.7	1.8	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22586
- (5) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.1  
 4

## Report of Analysis

<b>Client Sample ID:</b> VL1-3(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28642-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.1		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	9.0		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

4.1  
4



## Report of Analysis

<b>Client Sample ID:</b> VL1-3(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28642-1A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.27 B	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0021 B	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0056 B			0.050	0.00040	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.046 B			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0027 B	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.9			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.024 B			0.040	0.00057	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.025 B			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Prep QC Batch: MP22606
- (4) Prep QC Batch: MP22611

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)                      B = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> VL1-3(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28642-1B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.014		0.010	0.0029	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.12 B		0.50	0.00081	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00090 B		0.0040	0.00025	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.036		0.010	0.0014	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0080 B		0.050	0.00040	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.038		0.025	0.0070	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Iron	27.9		0.10	0.020	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.54		0.015	0.00081	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.027 B		0.040	0.00057	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0012 B		0.0050	0.0010	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.12		0.10	0.00050	mg/l	1	03/05/14	03/05/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)                      B = Indicates a result > = MDL but < RL

4.3  
4

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information			Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes		
Company Name <b>Weston Solutions</b>			Project Name <b>IDOT-048</b>										<div style="display: flex; flex-direction: column; align-items: center;"> <p>Requested Analysis (see TEST CODE sheet)</p> <p><b>NOCS</b></p> <p><b>SNOCs</b></p> <p><b>Total Metals</b></p> <p><b>TCU/SP/PC Metals</b></p> <p><b>PH</b></p> </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank		
Street Address <b>750 E. Buncker Ct. Ste 500</b>			Street:																						
City <b>Norfolk Hills IL 60061</b>			Billing Information (If different from Report to)																						
State <b>IL</b>			Company Name																						
Zip <b>60061</b>			Street Address																						
Project Contact <b>S. Babusi, Manager</b>			City																						
Email <b>847-918-4018</b>			State																						
Phone # <b>847-918-4018</b>			Zip																						
Fax # <b>-4055</b>			Client PCW																						
Sampler(s) Name(s) <b>T. Walls</b>			Project Manager <b>847-918-4130</b>																						
Phone # <b>847-918-4130</b>			Attention:																						
PO#			PO#																						
Accutest Sample #	Field ID / Point of Collection	MEQ/DI Val #	Collection				Sampled by	Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY					
			Date	Time						PHI	NIOSH	INOC	MSDC	MSDC	NOVE	DI Water	MEDH	ENCORE	Bottle						
-1	VL1-3(0.5-1.5)-022714		2-27-14	1350		TW	S	3																	
-2	VL1-4(0.5-1.5)-022714			1405																					
-3	VL1-4(0.5-1.5)-022714D			1405																					
-4	VL1-5(0.5-1.5)-022714			1425																					
-5	VL1-6(0.5-1.5)-022714			1440																					
-6	VL1-7(0.5-1.5)-022714		2-27-14	1455																					
-7	GL-1(0.5-1.5)-022814		2-28-14	0745																					
-8	AL2-4(0.5-1.5)-022814			0800																					
-9	FS2-1(0.5-1.5)-022814			0820																					14B
-10	AL2-5(0.5-1.5)-022814			0835																					
-11	RN-1(0.5-1.5)-022814			0855																					
-12	AL2-6(0.5-1.5)-022814		2-28-14	0905			TW	S	3																
Turnaround Time (Business days)			Approved By (Accutest PM) / Date:			Data Deliverable Information										Comments / Special Instructions									
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TIA data available VIA Lablink</small>						<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>																			
Sample Custody must be documented below each time samples change possession, including courier delivery.												CHICAGO SC													
Relinquished by Sampler: <b>7 Matthew A. Wall</b>		Date Time: <b>2-28-14 / 1455</b>		Received By: <b>[Signature]</b>		Date Time: <b>2/28/14 2:53</b>		Relinquished By:		Date Time:		Received By: <b>FX</b>													
Relinquished by Sampler: <b>3 FX</b>		Date Time: <b>3/1/14 10:00</b>		Received By: <b>[Signature]</b>		Date Time:		Relinquished By:		Date Time:		Received By:													
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not intact		On Ice    Cooler Temp. <input checked="" type="checkbox"/> 0.5° 0.5°, 1.0°													

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Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL. 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes			
Company Name <b>Weston Solutions</b>		Project Name <b>IDIT-048</b>										<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           VDCs SADCs Total Metals TCLP/SPLP Metals PH         </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           DW - Drinking Water GW - Ground Water LW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LID - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank         </div> </div>										Matrix Codes  LAB USE ONLY			
Street Address <b>750 F. Bunker Ct. Ste 500</b>		Street: <b>Newton Hills FL 32661</b>																							
City <b>Newton Hills FL 32661</b>		Billing Information (if different from Report to)																							
Project Contact <b>S. Babinsku www</b>		Company Name																							
Phone # <b>817-918-4018</b>		Street Address																							
Fax # <b>-4055</b>		City <b>Newton Hills FL 32661</b>																							
Sampler(s) Name(s) <b>T. Wells</b>		Client POC#										City <b>Newton Hills FL 32661</b>										State <b>FL</b>	Zip <b>32661</b>		
Phone # <b>817-918-4130</b>		Project Manager										Attention:										PC#			
Accutest Sample #	Field ID / Point of Collection	MECHDI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles																	
			Date	Time	Sampled by			HCl	MCH	MCS	MCSA	MCSB	DI Water	MCH	ENCORE	Residue									
-13	AL2-7(0.5-1.5)-022814		2-28-14	0920	TW	S	3											X	X	X	X	X			
-14	AL2-7(0.5-1.5)-022814D			0920																					
-15	F53-1(0.5-1.5)-022814			0935																					
-16	TN-1(0.5-1.5)-022814			0950																					
-17	VL4-1(0.5-1.5)-022814			1010																					
-18	VL4-2(0.5-1.5)-022814			1020																					
-19	RI-1(0.5-1.5)-022814			1035																					
-20	LN-1(0.5-1.5)-022814		2-28-14	1050	rw	S	3																		
Turnaround Time (Business days)										Data Deliverable Information										Comments / Special Instructions					
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TJA data available VIA Lablink</small>										Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>															
Relinquished by Sampler:												Date Time:		Received By:		Relinquished By:		Date Time:		Received By:					
1 <b>Matthew A. Wells</b>												2-28-14/1455		<b>[Signature]</b>		2		2-28-14/255		<b>[Signature]</b>					
Relinquished by Sampler:												Date Time:		Received By:		Relinquished By:		Date Time:		Received By:					
3 <b>PO</b>												3/1/14 10:00		<b>[Signature]</b>		4		4		<b>[Signature]</b>					
Relinquished by:												Date Time:		Received By:		Custody Seal #		Intact		Preserved where applicable		On Ice		Cooler Temp.	
5																		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

MC28642: Chain of Custody

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

17000 to 18000 block of US 14 (between Paulson Road and Deep Cut Road)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.346199045 Longitude: -88.542050571

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.346199045 Longitude: -88.542050571

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS AL1-2, AL1-7, AL1-8, AL1-9, AL1-10, AL1-12, AND AL1-15 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-3. SEE FIGURE 3-1 AND 4-2 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28640 AND MC28641

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-3**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL1-2(0.5-1.5)-022714	AL1-7(0.5-1.5)-022714	AL1-8(0.5-1.5)-022714	AL1-9(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/27/2014	2/27/2014	2/27/2014	2/28/2014	
Location ID	AL1-2	AL1-7	AL1-8	AL1-9	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	9	8.8	8.6	8.3	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Acetone	75	ND	64.6	42.9	25000
Benzene	1.1	1.9	1	1.4	30
Carbon disulfide	1.8 J	ND	1.3 J	ND	9000
Ethylbenzene	0.41 J	0.71 J	ND	ND	13000
Methyl ethyl ketone	ND	ND	ND	ND	17000
Methylene chloride	2	2.6	1.7 J	2.2	20
Toluene	1.4 J	3 J	1.7 J	2.6 J	12000
Xylene (Total)	0.71 J	1.6 J	1.3 J	1.3 J	5600
<b>SVOCs (ug/kg)</b>					
2-Methylnaphthalene	25.4 J	ND	ND	ND	---
Acenaphthene	41.5 J	ND	ND	ND	570000
Acenaphthylene	ND	ND	63.6 J	ND	85000
Anthracene	95 J	ND	ND	ND	1.20E+07
Benzo(a)anthracene	311	ND	185 J	135 J	900 / 1100 / 1800
Benzo(a)pyrene	305	ND	180 J	123 J	90 / 1300 / 2100
Benzo(b)fluoranthene	384	ND	253 J	159 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	227	ND	286 J	173 J	2300000
Benzo(k)fluoranthene	129	ND	91.3 J	ND	9000
Butyl benzyl phthalate	20.7 J	ND	ND	ND	930000
Carbazole	47.4 J	ND	ND	ND	600
Chrysene	249	ND	153 J	116 J	88000
Dibenzo(a,h)anthracene	42.5 J	ND	ND	ND	90 / 200 / 420
Dibenzofuran	17.1 J	ND	ND	ND	---
Diethylphthalate	ND	ND	ND	ND	470000
Fluoranthene	753	ND	306 J	188 J	3100000
Fluorene	34.5 J	ND	ND	ND	560000
Indeno(1,2,3-cd)pyrene	170	ND	127 J	87.9 J	900 / 900 / 1600
Phenanthrene	436	ND	114 J	125 J	210000
Pyrene	616	ND	255 J	180 J	2300000
<b>Total Metals (mg/kg)</b>					
Antimony, Total	0.42 J	0.27 J	0.49 J	0.47 J	5
Arsenic, Total	7	5.3	4.1	3.9	11.3 / 13
Barium, Total	66.1	42.3	31.5	25.8 J	1500
Beryllium, Total	0.29 J	0.18 J	0.072 J	0.12 J	22
Cadmium, Total	0.21 J	0.24 J	0.099 J	0.077 J	5.2
Calcium, Total	46700	72200	111000	137000	---
Chromium, Total	17.7	13.3	9.7	7.2	21
Cobalt, Total	6.2	4.2 J	3.2 J	2.4 J	20
Copper, Total	16.2 J	16.6 J	14.2 J	9.8	2900
Iron, Total	14000	11700	8780	6700 J	15000 / 15900
Lead, Total	70	143	71.5	64.7	107
Magnesium, Total	22800	36500	61200	78900	325000
Manganese, Total	352 J	343 J	283 J	255	630 / 636
Mercury, Total	0.021 J	0.02 J	0.014 J	0.029 J	0.89
Nickel, Total	12.4	11	8.6	6.7 J	100
Potassium, Total	742	665	467	466 J	---
Selenium, Total	ND	ND	ND	0.34 J	1.3
Silver, Total	ND	ND	ND	ND	4.4
Sodium, Total	3120	1100	1880	1360	---
Thallium, Total	0.18 J	0.18 J	ND	ND	2.6
Vanadium, Total	26.5	21.6	17.3	13.3	550
Zinc, Total	57.6 J	55.7 J	48.6 J	29.4	5100

**Summary Table of ISGS Site No. 2792-3**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL1-2(0.5-1.5)-022714	AL1-7(0.5-1.5)-022714	AL1-8(0.5-1.5)-022714	AL1-9(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/27/2014	2/27/2014	2/27/2014	2/28/2014	
Location ID	AL1-2	AL1-7	AL1-8	AL1-9	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	0.0089 J	ND	0.0067 J	0.005 J	0.05
Barium, TCLP	0.79	0.84	1.1	0.63	2
Beryllium, TCLP	0.0003 J	ND	0.0003 J	ND	0.004
Cadmium, TCLP	0.0024 J	0.0013 J	0.0011 J	0.0032 J	0.005
Cobalt, TCLP	0.065	0.012 J	0.032 J	0.03 J	1
Copper, TCLP	0.012 J	0.0071 J	0.011 J	0.0085 J	0.65
Iron, TCLP	5.9	ND	3.7	0.82 J	5
Lead, TCLP	0.054	0.0037 J	0.014	0.078	0.0075
Manganese, TCLP	9.2	5.2	5.7	5.9 J	0.15
Nickel, TCLP	0.058	0.013 J	0.02 J	0.029 J	0.1
Selenium, TCLP	ND	ND	ND	ND	0.05
Zinc, TCLP	0.26	0.023 J	0.055 J	0.14	5
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.084	0.038	0.063	0.038	0.05
Barium, SPLP	0.93	0.46 J	0.85	0.41 J	2
Beryllium, SPLP	0.0061	0.0021 J	0.0042	0.0019 J	0.004
Cadmium, SPLP	0.0023 J	0.0013 J	0.0028 J	0.0015 J	0.005
Chromium, SPLP	0.16	0.083	0.12	0.061	0.1
Cobalt, SPLP	0.059	0.021 J	0.036 J	0.017 J	1
Copper, SPLP	0.2	0.089	0.14	0.077	0.65
Iron, SPLP	154	66.5	112	58.3 J	5
Lead, SPLP	0.53	0.43	0.56	0.49	0.0075
Manganese, SPLP	2.7	1.2	2.2	0.93	0.15
Mercury, SPLP	0.00023	ND	0.00019 J	ND	0.002
Nickel, SPLP	0.15	0.065	0.099	0.055	0.1
Selenium, SPLP	0.0062 J	ND	0.0072 J	ND	0.05
Zinc, SPLP	0.59	0.3	0.49	0.29	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



**Summary Table of ISGS Site No. 2792-3**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL1-9(0.5-1.5)-022814D	AL1-10(0.5-1.5)-022814	AL1-12(0.5-1.5)-022714	AL1-15(0.5-1.5)-022714	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	2/28/2014	2/27/2014	2/27/2014	
Location ID	AL1-9	AL1-10	AL1-12	AL1-15	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.5	8.4	8.8	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Acetone	ND	195	99.9	ND	25000
Benzene	1.8	2	0.68	1.5	30
Carbon disulfide	ND	ND	1.8 J	ND	9000
Ethylbenzene	ND	0.81 J	ND	ND	13000
Methyl ethyl ketone	ND	39.7	ND	ND	17000
Methylene chloride	4.2	5.2	4.7	2.2 J	20
Toluene	2.9 J	3.4 J	1.3 J	2.6 J	12000
Xylene (Total)	1.4 J	2.2 J	0.57 J	1.4 J	5600
<b>SVOCs (ug/kg)</b>					
2-Methylnaphthalene	ND	ND	ND	ND	---
Acenaphthene	ND	ND	ND	ND	570000
Acenaphthylene	ND	ND	ND	ND	85000
Anthracene	ND	ND	ND	ND	1.20E+07
Benzo(a)anthracene	131 J	ND	36.6 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	115 J	ND	36.9 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	138 J	ND	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	195 J	ND	84.8 J	ND	2300000
Benzo(k)fluoranthene	ND	ND	ND	ND	9000
Butyl benzyl phthalate	ND	ND	ND	ND	930000
Carbazole	ND	ND	ND	ND	600
Chrysene	97.4 J	ND	33.9 J	ND	88000
Dibenzo(a,h)anthracene	ND	ND	ND	ND	90 / 200 / 420
Dibenzofuran	ND	ND	ND	ND	---
Diethylphthalate	ND	73.7 J	ND	ND	470000
Fluoranthene	144 J	ND	64.4 J	ND	3100000
Fluorene	ND	ND	ND	ND	560000
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	900 / 900 / 1600
Phenanthrene	84.3 J	ND	37.5 J	ND	210000
Pyrene	138 J	ND	54.1 J	ND	2300000
<b>Total Metals (mg/kg)</b>					
Antimony, Total	0.25 J	0.14 J	0.17 J	ND	5
Arsenic, Total	4.3	6.2	7.3	5.1	11.3 / 13
Barium, Total	50.1 J	75.4	100	90.5	1500
Beryllium, Total	0.22 J	0.32 J	0.37	0.3 J	22
Cadmium, Total	0.31 J	0.23 J	0.26 J	0.17 J	5.2
Calcium, Total	39000	21700	19100	15400	---
Chromium, Total	10.3	17.2	14.1	11.8	21
Cobalt, Total	5.4	5.7	6.3	5.9	20
Copper, Total	15.3	16	14.8 J	10.9 J	2900
Iron, Total	11500 J	14300	16400	11900	15000 / 15900
Lead, Total	87.4	78.8	44.1	15.2	107
Magnesium, Total	25400	14300	12000	10100	325000
Manganese, Total	260	399	490 J	487 J	630 / 636
Mercury, Total	0.016 J	0.018 J	0.026 J	0.03 J	0.89
Nickel, Total	12.7 J	12.3	13	11.7	100
Potassium, Total	565	765	698	824	---
Selenium, Total	ND	ND	ND	ND	1.3
Silver, Total	ND	ND	0.11 J	0.13 J	4.4
Sodium, Total	2160	1220	2050	6120	---
Thallium, Total	ND	0.19 J	0.34 J	0.29 J	2.6
Vanadium, Total	19.6	25.9	26	26.1	550
Zinc, Total	53.8	53.4	50.3 J	46.7 J	5100

**Summary Table of ISGS Site No. 2792-3**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL1-9(0.5-1.5)-022814D	AL1-10(0.5-1.5)-022814	AL1-12(0.5-1.5)-022714	AL1-15(0.5-1.5)-022714	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	2/28/2014	2/27/2014	2/27/2014	
Location ID	AL1-9	AL1-10	AL1-12	AL1-15	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	0.0043 J	0.0068 J	0.0066 J	0.005 J	0.05
Barium, TCLP	0.56	0.85	1.1	0.79	2
Beryllium, TCLP	ND	ND	ND	ND	0.004
Cadmium, TCLP	0.0035 J	0.0034 J	0.001 J	0.001 J	0.005
Cobalt, TCLP	0.028 J	0.031 J	0.054	0.041 J	1
Copper, TCLP	0.012 J	0.008 J	0.0091 J	0.014 J	0.65
Iron, TCLP	0.17 J	0.8	0.49	2.3	5
Lead, TCLP	0.07	0.11	0.0048 J	0.0047 J	0.0075
Manganese, TCLP	4.4 J	5.8 J	10.5	9.8	0.15
Nickel, TCLP	0.029 J	0.026 J	0.027 J	0.033 J	0.1
Selenium, TCLP	ND	ND	0.0053 J	ND	0.05
Zinc, TCLP	0.13	0.19	0.06 J	0.057 J	5
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.03	0.025	0.071	0.1	0.05
Barium, SPLP	0.31 J	0.26 J	1.3	1	2
Beryllium, SPLP	0.0013 J	0.0012 J	0.0053	0.0059	0.004
Cadmium, SPLP	0.0013 J	0.0012 J	0.002 J	0.0014 J	0.005
Chromium, SPLP	0.048	0.042	0.14	0.15	0.1
Cobalt, SPLP	0.013 J	0.013 J	0.046 J	0.05	1
Copper, SPLP	0.061	0.063	0.14	0.14	0.65
Iron, SPLP	43.3 J	37.6 J	138	161	5
Lead, SPLP	0.47	0.42	0.19	0.16	0.0075
Manganese, SPLP	0.74	0.62	3.2	2.5	0.15
Mercury, SPLP	ND	ND	0.00035	0.0003	0.002
Nickel, SPLP	0.042	0.034 J	0.11	0.13	0.1
Selenium, SPLP	ND	ND	0.008 J	0.0098 J	0.05
Zinc, SPLP	0.25	0.21	0.49	0.4	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28640

Sampling Date: 02/27/14

Report to:

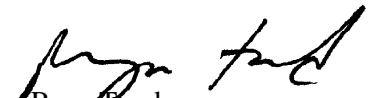
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **305**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> AL1-2(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-4	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63550.D	1	03/04/14	KD	n/a	n/a	MSM2227

Run #1	Initial Weight	Final Volume
Run #2	5.86 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	75.0	10	3.9	ug/kg	
71-43-2	Benzene	1.1	0.50	0.25	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.36	ug/kg	
75-25-2	Bromoform	ND	2.0	0.29	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.97	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	1.8	5.0	0.50	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.0	1.2	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.27	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.60	ug/kg	
67-66-3	Chloroform	ND	2.0	0.29	ug/kg	
74-87-3	Chloromethane	ND	5.0	1.2	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.54	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.52	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.29	ug/kg	
100-41-4	Ethylbenzene	0.41	2.0	0.18	ug/kg	J
591-78-6	2-Hexanone	ND	10	2.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.40	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.8	ug/kg	
75-09-2	Methylene chloride	2.0	2.0	1.5	ug/kg	
100-42-5	Styrene	ND	5.0	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.29	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.44	ug/kg	
108-88-3	Toluene	1.4	5.0	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.25	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> AL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-4	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.35	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.47	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.57	ug/kg	
1330-20-7	Xylene (total)	0.71	2.0	0.20	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	16	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.84	9.4	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.3	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.9	ug/kg	JN
	Total TIC, Volatile		45.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL1-2(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-4	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37270.D	1	03/06/14	KR	03/03/14	OP37037	MSR1376
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	95	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	73	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	30	ug/kg	
88-75-5	2-Nitrophenol	ND	580	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	41.5	120	16	ug/kg	J
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	95.0	120	14	ug/kg	J
56-55-3	Benzo(a)anthracene	311	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	305	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	384	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	227	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	129	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	20.7	290	12	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	15	ug/kg	
86-74-8	Carbazole	47.4	120	14	ug/kg	J
218-01-9	Chrysene	249	120	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	AL1-2(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-4	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	42.5	120	14	ug/kg	J
132-64-9	Dibenzofuran	17.1	120	16	ug/kg	J
84-74-2	Di-n-butyl phthalate	41.6	290	31	ug/kg	JB
117-84-0	Di-n-octyl phthalate	ND	290	9.1	ug/kg	
84-66-2	Diethyl phthalate	30.3	290	15	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	27.1	290	11	ug/kg	JB
206-44-0	Fluoranthene	753	120	16	ug/kg	
86-73-7	Fluorene	34.5	120	15	ug/kg	J
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	170	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	25.4	120	15	ug/kg	J
88-74-4	2-Nitroaniline	ND	580	15	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	436	120	16	ug/kg	
129-00-0	Pyrene	616	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	89%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-2(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-4 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 85.4
---	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	87%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	6600	ug/kg	JN
	Total TIC, Semi-Volatile		6600	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-4	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.42 B	0.87	0.13	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.0	0.87	0.18	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	66.1	4.3	0.063	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.29 B	0.35	0.021	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.21 B	0.35	0.037	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	46700	430	5.4	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	17.7	0.87	0.082	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.2	4.3	0.041	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	16.2	2.2	0.48	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	14000	8.7	0.75	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	70.0	0.87	0.15	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	22800	430	4.4	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	352	1.3	0.035	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.021 B	0.038	0.0084	mg/kg	1	03/04/14	03/05/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	12.4	3.5	0.038	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	742	430	7.4	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	3120	430	2.9	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.18 B	0.87	0.12	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	26.5	0.87	0.11	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	57.6	1.7	0.14	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16809
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22576
- (4) Prep QC Batch: MP22587

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-4	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.10  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.4		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	9.0		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-4A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0089 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Barium	0.79	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00030 B			0.0040	0.00025	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0024 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.065			0.050	0.00040	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Copper	0.012 B			0.025	0.0070	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Iron	5.9			0.10	0.020	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Lead	0.054	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Manganese	9.2			0.015	0.00081	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/06/14	SA SW846 7470A <sup>1</sup>
Nickel	0.058			0.040	0.00057	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.26			0.10	0.00050	mg/l	1	03/04/14	03/04/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16813
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22590
- (4) Prep QC Batch: MP22593

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.11  
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## Report of Analysis

<b>Client Sample ID:</b> AL1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-4B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.084		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.93		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0061		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0023 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.16		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.059		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.20		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	154		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.53		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.7		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00023		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.15		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0062 B		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.59		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16805
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22577
- (4) Prep QC Batch: MP22582

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)                      B = Indicates a result > = MDL but < RL

4.12  
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## Report of Analysis

<b>Client Sample ID:</b>	AL1-7(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-11	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63574.D	1	03/05/14	KD	n/a	n/a	MSM2228
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.79 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/kg	
71-43-2	Benzene	1.9	0.51	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.1	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.76	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.27	ug/kg	
100-41-4	Ethylbenzene	0.71	2.0	0.70	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.54	ug/kg	
75-09-2	Methylene chloride	2.6	2.0	0.54	ug/kg	
100-42-5	Styrene	ND	5.1	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	3.0	5.1	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-7(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-11	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	1.6	2.0	0.22	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	30	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.84	9.4	ug/kg	JN
110-54-3	Hexane	8.47	6.2	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	9.16	5.1	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.2	ug/kg	JN
	Total TIC, Volatile		62.2	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.31  
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## Report of Analysis

<b>Client Sample ID:</b> AL1-7(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-11	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 85.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37276.D	5	03/06/14	KR	03/03/14	OP37037	MSR1376
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	64	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	72	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	82	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5700	710	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	76	ug/kg	
100-02-7	4-Nitrophenol	ND	5700	530	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	81	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	71	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	70	ug/kg	
83-32-9	Acenaphthene	ND	570	76	ug/kg	
208-96-8	Acenaphthylene	ND	570	57	ug/kg	
120-12-7	Anthracene	ND	570	68	ug/kg	
56-55-3	Benzo(a)anthracene	ND	570	73	ug/kg	
50-32-8	Benzo(a)pyrene	ND	570	61	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	570	71	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	570	57	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	570	86	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	72	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	58	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	77	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	71	ug/kg	
86-74-8	Carbazole	ND	570	67	ug/kg	
218-01-9	Chrysene	ND	570	70	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	66	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	86	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	87	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL1-7(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-11	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 85.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	73	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	81	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	75	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	71	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	570	68	ug/kg	
132-64-9	Dibenzofuran	ND	570	78	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	105	1400	71	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	1400	82	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	68.9	1400	52	ug/kg	JB
206-44-0	Fluoranthene	ND	570	78	ug/kg	
86-73-7	Fluorene	ND	570	75	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	89	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	82	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	710	ug/kg	
67-72-1	Hexachloroethane	ND	1400	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	570	63	ug/kg	
78-59-1	Isophorone	ND	1400	65	ug/kg	
91-57-6	2-Methylnaphthalene	ND	570	72	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	71	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	160	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	71	ug/kg	
91-20-3	Naphthalene	ND	570	91	ug/kg	
98-95-3	Nitrobenzene	ND	1400	77	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	81	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	86	ug/kg	
85-01-8	Phenanthrene	ND	570	77	ug/kg	
129-00-0	Pyrene	ND	570	66	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	78	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL1-7(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-11 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 85.5
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	80%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.31  
4

## Report of Analysis

<b>Client Sample ID:</b> AL1-7(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-11	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis**

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.27 B	0.89	0.13	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.3	0.89	0.18	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	42.3	4.4	0.064	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.18 B	0.35	0.021	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.24 B	0.35	0.037	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	72200	4400	56	mg/kg	10	03/03/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	13.3	0.89	0.084	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.2 B	4.4	0.042	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	16.6	2.2	0.49	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	11700	8.9	0.77	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	143	0.89	0.15	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	36500	440	4.5	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	343	1.3	0.035	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.020 B	0.038	0.0084	mg/kg	1	03/04/14	03/05/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	11.0	3.5	0.039	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	665	440	7.6	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	1100	440	2.9	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.18 B	0.89	0.12	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	21.6	0.89	0.12	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	55.7	1.8	0.14	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16810
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22576
- (5) Prep QC Batch: MP22588

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-7(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-11 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 85.5
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4.31  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.5		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.8		su	1	03/03/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL1-7(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-11A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.84	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.012 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0071 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0037 B	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.2			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/06/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.023 B			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16813
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22590
- (4) Prep QC Batch: MP22593

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-7(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-11B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.038		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.46 B		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0021 B		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0013 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.083		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.021 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.089		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	66.5		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.43		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.2		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.065		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.30		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16805
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22577
- (4) Prep QC Batch: MP22582

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.33  
4

## Report of Analysis

<b>Client Sample ID:</b>	AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-12	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.7
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63575.D	1	03/05/14	KD	n/a	n/a	MSM2228
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.38 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	64.6	13	3.8	ug/kg	
71-43-2	Benzene	1.0	0.67	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.48	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.81	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.1	ug/kg	
75-15-0	Carbon disulfide	1.3	6.7	0.18	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.7	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.7	0.76	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.44	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.56	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.56	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.56	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.57	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.35	ug/kg	
100-41-4	Ethylbenzene	ND	2.7	0.93	ug/kg	
591-78-6	2-Hexanone	ND	13	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.7	0.73	ug/kg	
75-09-2	Methylene chloride	1.7	2.7	0.72	ug/kg	J
100-42-5	Styrene	ND	6.7	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.53	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	1.7	6.7	0.28	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-12	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.77	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	1.3	2.7	0.30	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	31	ug/kg	JN
627-27-0	3-Buten-1-ol	7.84	6.2	ug/kg	JN
	Total TIC, Volatile		37.2	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b>	AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-12	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37277.D	5	03/06/14	KR	03/03/14	OP37037	MSR1376
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	64	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	72	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	82	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5700	710	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	76	ug/kg	
100-02-7	4-Nitrophenol	ND	5700	530	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	81	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	71	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	70	ug/kg	
83-32-9	Acenaphthene	ND	570	76	ug/kg	
208-96-8	Acenaphthylene	63.6	570	57	ug/kg	J
120-12-7	Anthracene	ND	570	68	ug/kg	
56-55-3	Benzo(a)anthracene	185	570	73	ug/kg	J
50-32-8	Benzo(a)pyrene	180	570	61	ug/kg	J
205-99-2	Benzo(b)fluoranthene	253	570	71	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	286	570	57	ug/kg	J
207-08-9	Benzo(k)fluoranthene	91.3	570	86	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	1400	72	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	58	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	77	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	71	ug/kg	
86-74-8	Carbazole	ND	570	67	ug/kg	
218-01-9	Chrysene	153	570	70	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	67	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	86	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	87	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-12	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	73	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	81	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	75	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	71	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	570	68	ug/kg	
132-64-9	Dibenzofuran	ND	570	78	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	108	1400	71	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	1400	82	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	73.4	1400	52	ug/kg	JB
206-44-0	Fluoranthene	306	570	78	ug/kg	J
86-73-7	Fluorene	ND	570	75	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	89	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	82	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	710	ug/kg	
67-72-1	Hexachloroethane	ND	1400	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	127	570	63	ug/kg	J
78-59-1	Isophorone	ND	1400	65	ug/kg	
91-57-6	2-Methylnaphthalene	ND	570	72	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	71	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	160	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	71	ug/kg	
91-20-3	Naphthalene	ND	570	91	ug/kg	
98-95-3	Nitrobenzene	ND	1400	77	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	81	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	86	ug/kg	
85-01-8	Phenanthrene	114	570	77	ug/kg	J
129-00-0	Pyrene	255	570	67	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	78	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	63%		30-130%
118-79-6	2,4,6-Tribromophenol	69%		30-130%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-12	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	73%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5400	ug/kg	JN
	Total TIC, Semi-Volatile		5400	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-12	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.49 B	0.90	0.14	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.1	0.90	0.19	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	31.5	4.5	0.065	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.072 B	0.36	0.021	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.099 B	0.36	0.038	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	111000	4500	57	mg/kg	10	03/03/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	9.7	0.90	0.086	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.2 B	4.5	0.042	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	14.2	2.3	0.50	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	8780	9.0	0.78	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	71.5	0.90	0.15	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	61200	450	4.6	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	283	1.4	0.036	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.014 B	0.034	0.0075	mg/kg	1	03/04/14	03/05/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	8.6	3.6	0.040	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	467	450	7.7	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	1880	450	3.0	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.90	0.12	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.3	0.90	0.12	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	48.6	1.8	0.15	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16810
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22576
- (5) Prep QC Batch: MP22588

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-12	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.7		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.6		su	1	03/03/14	MA	SW846 9045D

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RL = Reporting Limit

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-12A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0067 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	1.1	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00030 B			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.032 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	3.7			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.014	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.7			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/06/14	SA SW846 7470A <sup>1</sup>
Nickel	0.020 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.055 B			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16813
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22590
- (4) Prep QC Batch: MP22593

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.35  
4

## Report of Analysis

<b>Client Sample ID:</b> AL1-8(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-12B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.063		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.85		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0028 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.036 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.14		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	112		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.56		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.2		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00019 B		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.099		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0072 B		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.49		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16805
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22577
- (4) Prep QC Batch: MP22582

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.36  
4

## Report of Analysis

<b>Client Sample ID:</b>	AL1-12(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-15	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63578.D	1	03/05/14	KD	n/a	n/a	MSM2228
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.62 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	99.9	13	3.6	ug/kg	
71-43-2	Benzene	0.68	0.64	0.43	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.27	ug/kg	
75-25-2	Bromoform	ND	2.6	0.45	ug/kg	
74-83-9	Bromomethane	ND	2.6	0.77	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.9	ug/kg	
75-15-0	Carbon disulfide	1.8	6.4	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.6	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.97	ug/kg	
67-66-3	Chloroform	ND	2.6	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.72	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.41	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.6	0.34	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.6	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.6	0.53	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.6	0.58	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	0.53	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.6	0.53	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.54	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.34	ug/kg	
100-41-4	Ethylbenzene	ND	2.6	0.88	ug/kg	
591-78-6	2-Hexanone	ND	13	0.97	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.6	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.4	0.69	ug/kg	
75-09-2	Methylene chloride	4.7	2.6	0.68	ug/kg	
100-42-5	Styrene	ND	6.4	0.22	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.50	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	0.40	ug/kg	
108-88-3	Toluene	1.3	6.4	0.26	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.28	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-12(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-15	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.73	ug/kg	
79-01-6	Trichloroethene	ND	2.6	0.31	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	1.2	ug/kg	
1330-20-7	Xylene (total)	0.57	2.6	0.28	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4



## Report of Analysis

<b>Client Sample ID:</b>	AL1-12(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-15	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37280.D	1	03/06/14	KR	03/03/14	OP37037	MSR1376
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	95	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	72	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	30	ug/kg	
88-75-5	2-Nitrophenol	ND	580	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	36.6	120	15	ug/kg	J
50-32-8	Benzo(a)pyrene	36.9	120	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	ND	120	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	84.8	120	12	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	14	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	33.9	120	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	AL1-12(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-15	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	37.1	290	31	ug/kg	JB
117-84-0	Di-n-octyl phthalate	ND	290	9.1	ug/kg	
84-66-2	Diethyl phthalate	21.3	290	14	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	64.4	120	16	ug/kg	J
86-73-7	Fluorene	ND	120	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	14	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	14	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	37.5	120	16	ug/kg	J
129-00-0	Pyrene	54.1	120	14	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-12(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-15 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 84.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	84%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4

# Report of Analysis

<b>Client Sample ID:</b> AL1-12(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-15	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.17 B	0.89	0.13	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.3	0.89	0.18	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	100	4.4	0.065	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.37	0.36	0.021	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.26 B	0.36	0.038	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	19100	440	5.6	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	14.1	0.89	0.084	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.3	4.4	0.042	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	14.8	2.2	0.49	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	16400	8.9	0.77	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	44.1	0.89	0.15	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	12000	440	4.6	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	490	1.3	0.036	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.026 B	0.037	0.0081	mg/kg	1	03/04/14	03/05/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	13.0	3.6	0.039	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	698	440	7.6	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 B	0.44	0.11	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	2050	440	2.9	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.34 B	0.89	0.12	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	26.0	0.89	0.12	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	50.3	1.8	0.14	mg/kg	1	03/03/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16810
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22576
- (4) Prep QC Batch: MP22588

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-12(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-15	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.6		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.8		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

4.43  
4

## Report of Analysis

<b>Client Sample ID:</b> AL1-12(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-15A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 84.6
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0066 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	1.1	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.054			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0091 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.49			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0048 B	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	10.5			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/06/14	SA SW846 7470A <sup>1</sup>
Nickel	0.027 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0053 B	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.060 B			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16813
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22590
- (4) Prep QC Batch: MP22593

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.44  
4

## Report of Analysis

<b>Client Sample ID:</b> AL1-12(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-15B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.071		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.3		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0053		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0020 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.046 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.14		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	138		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.19		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.2		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00035		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0080 B		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.49		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16805
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22577
- (4) Prep QC Batch: MP22582

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-15(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-18	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 81.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63581.D	1	03/05/14	KD	n/a	n/a	MSM2228

Run #1	Initial Weight	Final Volume
Run #2	5.12 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	1.5	0.60	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.72	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.7	ug/kg	
75-15-0	Carbon disulfide	ND	6.0	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.50	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	2.4	0.82	ug/kg	
591-78-6	2-Hexanone	ND	12	0.91	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.0	0.64	ug/kg	
75-09-2	Methylene chloride	2.2	2.4	0.63	ug/kg	J
100-42-5	Styrene	ND	6.0	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	2.6	6.0	0.25	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL1-15(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-18	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 81.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.69	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	1.4	2.4	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.09	17	ug/kg	JN
6443-92-1	(Z)-2-Heptene	9.17	7	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	9.91	6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.6	ug/kg	JN
	Total TIC, Volatile		39.6	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.52  
4

## Report of Analysis

<b>Client Sample ID:</b>	AL1-15(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-18	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37283.D	1	03/06/14	KR	03/03/14	OP37037	MSR1376
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	600	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	600	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	600	97	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	600	74	ug/kg	
95-48-7	2-Methylphenol	ND	600	24	ug/kg	
106-44-5	4-Methylphenol	ND	600	30	ug/kg	
88-75-5	2-Nitrophenol	ND	600	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	600	42	ug/kg	
108-95-2	Phenol	ND	300	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	600	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	600	15	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	16	ug/kg	
106-47-8	4-Chloroaniline	ND	600	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL1-15(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-18	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 81.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	600	40	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	600	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	30	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	300	32	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	9.3	ug/kg	
84-66-2	Diethyl phthalate	20.6	300	15	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	300	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	14.8	300	11	ug/kg	JB
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	600	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	300	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	600	15	ug/kg	
99-09-2	3-Nitroaniline	ND	600	33	ug/kg	
100-01-6	4-Nitroaniline	ND	600	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	300	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%		30-130%
4165-62-2	Phenol-d5	62%		30-130%
118-79-6	2,4,6-Tribromophenol	74%		30-130%
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-15(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-18	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 81.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	72%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5600	ug/kg	JN
15594-90-8	1-Heneicosanol	12.34	1100	ug/kg	JN
	Total TIC, Semi-Volatile		6700	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL1-15(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-18	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 81.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.15 U	0.96	0.15	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.1	0.96	0.20	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	90.5	4.8	0.070	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.30 B	0.39	0.023	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.17 B	0.39	0.041	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	15400	480	6.1	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	11.8	0.96	0.092	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.9	4.8	0.045	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	10.9	2.4	0.53	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	11900	9.6	0.84	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	15.2	0.96	0.16	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	10100	480	4.9	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	487	1.4	0.039	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.030 B	0.037	0.0080	mg/kg	1	03/04/14	03/05/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	11.7	3.9	0.042	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	824	480	8.2	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 U	0.96	0.33	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.13 B	0.48	0.12	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	6120	480	3.2	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.29 B	0.96	0.13	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	26.1	0.96	0.13	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	46.7	1.9	0.16	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16810
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22576
- (4) Prep QC Batch: MP22588

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-15(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-18 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 81.7
--	--

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	81.7		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.7		su	1	03/03/14	MA	SW846 9045D

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RL = Reporting Limit

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## Report of Analysis

<b>Client Sample ID:</b> AL1-15(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-18A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 81.7
---	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0050 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.79	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.041 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.014 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	2.3			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0047 B	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	9.8			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/06/14	SA SW846 7470A <sup>1</sup>
Nickel	0.033 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.057 B			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16813
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22590
- (4) Prep QC Batch: MP22593

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL1-15(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-18B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 81.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.10		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.0		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0059		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.050		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.14		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	161		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.5		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00030		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.13		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0098 B		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.40		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16805
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22577
- (4) Prep QC Batch: MP22582

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)                      B = Indicates a result > = MDL but < RL

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Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Bole Order Control #
Accutest Quote #	Accutest Job # <b>MC28640</b>

Client / Reporting Information			Project Information				Requested Analysis ( see TEST CODE sheet)										Matrix Codes					
Company Name <b>Weston Solutions</b>			Project Name <b>I DOT-048</b>														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RS - Rinse Blank TB-Trip Blank					
Street Address <b>750 E. Banker Lt Ste 500</b>			Billing Information (if different from Report to)																			
City <b>Norfolk Hills IL</b>			Company Name																			
State <b>IL</b>			Street Address																			
Zip <b>60001</b>			City																			
Project Contact <b>S. Babinsu Kumar</b>			State																			
Phone # <b>847-918-4018</b>			Zip																			
Fax # <b>-4055</b>			Attention: PO#																			
Sampler(s) Name(s) <b>T. Wells</b>			Project Manager																			
Phone # <b>847-918-4130</b>			Collection																			
Accutest Sample #	Field ID / Point of Collection	MEQMDI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	HNO3	H2SO4	HNO2	Dil Water	MECH	ENCODE	Blankline	LAB USE ONLY						
-1	VLI-1(0.5-1.5)-022714		2-27-14	0815	TW	S	3										X	X	X	X	X	
-2	VLI-1(0.5-1.5)-022714D			0815																		
-3	ALI-1(0.5-1.5)-022714			0835																		
-4	ALI-2(0.5-1.5)-022714			0855																		
-5	ALI-3(0.5-1.5)-022714			0910																		
-6	ALI-4(0.5-1.5)-022714			0925																		
-7	ALI-5(0.5-1.5)-022714			0940																		
-8	ALI-6(0.5-1.5)-022714			1000																		
-9	REI-1(0.5-1.5)-022714			1015																		
-10	REI-2(0.5-1.5)-022714			1030																		
-11	ALI-7(0.5-1.5)-022714			1040																		
-12	ALI-8(0.5-1.5)-022714		2-27-14	1055	TW	S	3										X	X	X	X	X	
Turnaround Time ( Business days)				Approved By (Accutest PM): / Date:				Data Deliverable Information					Comments / Special Instructions									
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY								<input type="checkbox"/> Commercial "A" ( Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" ( Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 ( Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other														
Emergency & Rush T/A data available VIA Lablink								Commercial "A" = Results Only Commercial "B" = Results + QC Summary														
Sample Custody must be documented below each time samples change possession, including courier delivery.														CHICAGO SC								
Relinquished by Sampler: <b>1 Timothy A. Wells</b>			Date Time: <b>2-28-14/1455</b>			Received By: <b>[Signature]</b>			Relinquished By:			Date Time: <b>2</b>			Received By: <b>FY</b>							
Relinquished by Sampler: <b>3 [Signature]</b>			Date Time: <b>3/1/14 10:00</b>			Received By: <b>[Signature]</b>			Relinquished By:			Date Time: <b>4</b>			Received By: <b>4</b>							
Relinquished by:			Date Time:			Received By:			Custody Seal #			<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact			On Ice <input type="checkbox"/> Cooler Temp. <b>0.5° 0.5° 1.0°</b>							
5						5																

5.1 5

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #
	MC28640

Client / Reporting Information				Project Information												Requested Analysis ( see TEST CODE sheet)											Matrix Codes			
Company Name <i>Weston Solutions</i>				Project Name <i>IDOT-048</i>																										
Street Address <i>750 E. Bunken Ct. Ste 500</i>				Billing Information ( If different from Report to)																										
City <i>Norfolk Hills IL</i>				Company Name																										
State <i>IL</i>				Street Address																										
Zip <i>60061</i>				City																										
Project Contact <i>S. Babusukumar</i>				State																										
E-mail <i></i>				Zip																										
Phone # <i>847-918-4018</i>				Attention:																										
Fax # <i>-4055</i>				PO#																										
Sampler(s) Name(s) <i>T. Walsh</i>				Project Manager																										
Phone # <i>847-918-4130</i>				Collection																										
Associated Sample #	Field ID / Point of Collection	MCHQDI Vial #	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles													LAB USE ONLY									
								NOC	NOCs	Total Metals	TECP/SPLP Metals	PH																		
	-13 ALI-11(0.5-1.5)-022714		2-27-14	1155	TW	S	3											X	X	X	X	X								
	-14 ALI-11(0.5-1.5)-022714D			1155														X	X	X	X	X								
	-15 ALI-12(0.5-1.5)-022714			1215														X	X	X	X	X								
	-16 ALI-13(0.5-1.5)-022714			1225														X	X	X	X	X								
	-17 ALI-14(0.5-1.5)-022714			1245														X	X	X	X	X								
	-18 ALI-15(0.5-1.5)-022714			1300														X	X	X	X	X								
	-19 ALI-16(0.5-1.5)-022714			1320														X	X	X	X	X								
	-20 ALI-2(0.5-1.5)-022714		2-27-14	1335	TW	S	3											X	X	X	X	X								
				Data Deliverable Information												Comments / Special Instructions														
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TJA data available VIA Lablink</small>				Approved By (Accutest PM): / Date: _____ _____				<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <small>Commercial "A" = Results Only                  Commercial "B" = Results + QC Summary</small>						<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only                  Commercial "B" = Results + QC Summary</small>																
				Sample Custody must be documented by log each time samples change possession, including courier delivery.												CHICAGO SC														
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:			Date Time:	Received By:																					
1 <i>Jennifer A. Walsh</i>	2-28-14 14:55	1 <i>[Signature]</i>	1 <i>[Signature]</i>	2/28/14 2:58	2 <i>[Signature]</i>				2 <i>[Signature]</i>																					
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:			Date Time:	Received By:																					
3 <i>FX</i>	3/1/14 10:00	3 <i>[Signature]</i>	4 <i>[Signature]</i>		4 <i>[Signature]</i>				4 <i>[Signature]</i>																					
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact		<input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp.																								
5		5																												



03/12/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28641

Sampling Date: 02/28/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **228**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-7	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63600.D	1	03/06/14	KD	n/a	n/a	MSM2229
Run #2							

Run #	Initial Weight	Final Volume
Run #1	6.08 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	42.9	9.6	2.7	ug/kg	
71-43-2	Benzene	1.4	0.48	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.57	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.6	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	4.8	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.8	0.72	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.40	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.40	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.40	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	0.66	ug/kg	
591-78-6	2-Hexanone	ND	9.6	0.72	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.8	0.52	ug/kg	
75-09-2	Methylene chloride	2.2	1.9	0.51	ug/kg	
100-42-5	Styrene	ND	4.8	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.38	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	2.6	4.8	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-7	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.55	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.87	ug/kg	
1330-20-7	Xylene (total)	1.3	1.9	0.21	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.06	12	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.84	6.7	ug/kg	JN
110-54-3	Hexane	8.47	5.5	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	5.1	ug/kg	JN
	Total TIC, Volatile		29.3	ug/kg	J

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## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-7	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37257.D	5	03/06/14	KR	03/04/14	OP37036	MSR1375
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	71	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	81	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	700	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	75	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	530	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	80	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	70	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	69	ug/kg	
83-32-9	Acenaphthene	ND	560	75	ug/kg	
208-96-8	Acenaphthylene	ND	560	56	ug/kg	
120-12-7	Anthracene	ND	560	68	ug/kg	
56-55-3	Benzo(a)anthracene	135	560	73	ug/kg	J
50-32-8	Benzo(a)pyrene	123	560	61	ug/kg	J
205-99-2	Benzo(b)fluoranthene	159	560	70	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	173	560	56	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	560	85	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	71	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	76	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	70	ug/kg	
86-74-8	Carbazole	ND	560	66	ug/kg	
218-01-9	Chrysene	116	560	70	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	66	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	86	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	86	ug/kg	

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# Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-7	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	73	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	81	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	75	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	70	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	67	ug/kg	
132-64-9	Dibenzofuran	ND	560	78	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	70	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	81	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	52	ug/kg	
206-44-0	Fluoranthene	188	560	77	ug/kg	J
86-73-7	Fluorene	ND	560	75	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	88	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	81	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	87.9	560	62	ug/kg	J
78-59-1	Isophorone	ND	1400	65	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	71	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	70	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	70	ug/kg	
91-20-3	Naphthalene	ND	560	90	ug/kg	
98-95-3	Nitrobenzene	ND	1400	76	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	80	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	85	ug/kg	
85-01-8	Phenanthrene	125	560	76	ug/kg	J
129-00-0	Pyrene	180	560	66	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	78	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%

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## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-7 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 86.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.73	6100	ug/kg JN
	Total TIC, Semi-Volatile		6100	ug/kg J

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 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-7	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.47 B	0.96	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.9	0.96	0.20	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	25.8	4.8	0.070	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.12 B	0.38	0.023	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.077 B	0.38	0.041	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	137000	4800	60	mg/kg	10	03/04/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	7.2	0.96	0.091	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	2.4 B	4.8	0.045	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	9.8	2.4	0.53	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	6700	9.6	0.84	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	64.7	0.96	0.16	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	78900	480	4.9	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	255	1.4	0.038	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.029 B	0.036	0.0079	mg/kg	1	03/06/14	03/06/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	6.7	3.8	0.042	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	466 B	480	8.2	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.34 B	0.96	0.33	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.48	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	1360	480	3.2	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.13 U	0.96	0.13	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	13.3	0.96	0.13	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	29.4	1.9	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22585
- (5) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-7 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 86.1
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.1		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.3		su	1	03/03/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-7A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 86.1
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0050 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.63	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0032 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.030 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0085 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.82			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.078	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.9			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/05/14	SA SW846 7470A <sup>1</sup>
Nickel	0.029 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.14			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16814
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22591
- (4) Prep QC Batch: MP22594

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-7B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.038		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.41 B		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0019 B		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0015 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.061		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.017 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.077		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	58.3		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.49		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.93		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.055		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.29		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16806
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22578
- (4) Prep QC Batch: MP22583

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.21  
4

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-8	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63601.D	1	03/06/14	KD	n/a	n/a	MSM2229
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.41 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.6	ug/kg	
71-43-2	Benzene	1.8	0.64	0.43	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.27	ug/kg	
75-25-2	Bromoform	ND	2.6	0.46	ug/kg	
74-83-9	Bromomethane	ND	2.6	0.77	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.0	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	0.17	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.97	ug/kg	
67-66-3	Chloroform	ND	2.6	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.73	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.42	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.6	0.34	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.6	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.6	0.53	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.6	0.58	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	0.54	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.6	0.54	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.54	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.34	ug/kg	
100-41-4	Ethylbenzene	ND	2.6	0.89	ug/kg	
591-78-6	2-Hexanone	ND	13	0.98	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.6	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.4	0.69	ug/kg	
75-09-2	Methylene chloride	4.2	2.6	0.68	ug/kg	
100-42-5	Styrene	ND	6.4	0.22	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.51	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	0.40	ug/kg	
108-88-3	Toluene	2.9	6.4	0.26	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.28	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.22  
4

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814D	
<b>Lab Sample ID:</b> MC28641-8	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.74	ug/kg	
79-01-6	Trichloroethene	ND	2.6	0.32	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	1.2	ug/kg	
1330-20-7	Xylene (total)	1.4	2.6	0.28	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	27	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	20	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	10	ug/kg	JN
110-54-3	Hexane	8.46	8.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.1	ug/kg	JN
	Total TIC, Volatile		72.4	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL1-9(0.5-1.5)-022814D	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28641-8	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37258.D	5	03/06/14	KR	03/04/14	OP37036	MSR1375
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	340	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	131	550	71	ug/kg	J
50-32-8	Benzo(a)pyrene	115	550	59	ug/kg	J
205-99-2	Benzo(b)fluoranthene	138	550	69	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	195	550	55	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	97.4	550	69	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814D	
<b>Lab Sample ID:</b> MC28641-8	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	144	550	76	ug/kg	J
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	84.3	550	75	ug/kg	J
129-00-0	Pyrene	138	550	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	76%		30-130%
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814D <b>Lab Sample ID:</b> MC28641-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 88.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	84%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.72	5200	ug/kg	JN
	Total TIC, Semi-Volatile		5200	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.22  
4

# Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-8	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.25 B	0.86	0.13	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	4.3	0.86	0.18	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	50.1	4.3	0.062	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.22 B	0.34	0.020	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.31 B	0.34	0.036	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	39000	430	5.4	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	10.3	0.86	0.082	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.4	4.3	0.040	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	15.3	2.1	0.48	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	11500	8.6	0.75	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	87.4	0.86	0.14	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	25400	430	4.4	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	260	1.3	0.034	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.016 B	0.034	0.0076	mg/kg	1	03/06/14	03/06/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	12.7	3.4	0.038	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	565	430	7.4	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.30 U	0.86	0.30	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	2160	430	2.8	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.11 U	0.86	0.11	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	19.6	0.86	0.11	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	53.8	1.7	0.14	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22585
- (4) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814D <b>Lab Sample ID:</b> MC28641-8 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 88.1
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4.22  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.1		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.5		su	1	03/03/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-8A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0043 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.56	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0035 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.028 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.012 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.17			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.070	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.4			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/05/14	SA SW846 7470A <sup>1</sup>
Nickel	0.029 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.13			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16814
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22591
- (4) Prep QC Batch: MP22594

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.23  
4

## Report of Analysis

<b>Client Sample ID:</b> AL1-9(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-8B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.030		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.31 B		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0013 B		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0013 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.048		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.013 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.061		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	43.3		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.47		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.74		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.042		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.25		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16806
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22578
- (4) Prep QC Batch: MP22583

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.24  
4

# Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-9	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63602.D	1	03/06/14	KD	n/a	n/a	MSM2229

Run #1	Initial Weight	Final Volume
Run #2	4.98 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	195	12	3.3	ug/kg	
71-43-2	Benzene	2.0	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	39.7	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.89	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	0.81	2.4	0.81	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.89	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.63	ug/kg	
75-09-2	Methylene chloride	5.2	2.4	0.62	ug/kg	
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	3.4	5.9	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-9	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	2.2	2.4	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-28-5	Isobutane	4.78	68	ug/kg	JN
106-97-8	Butane	5.11	27	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	27	ug/kg	JN
19781-68-1	Cyclopropane, 1-ethyl-2-methyl-, c	9.92	11	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	13	ug/kg	JN
	Total TIC, Volatile		146	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b>	AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28641-9	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37286.D	5	03/06/14	KR	03/04/14	OP37036	MSR1376
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1500	66	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2900	74	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2900	84	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2900	470	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5800	730	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	360	ug/kg	
95-48-7	2-Methylphenol	ND	2900	120	ug/kg	
106-44-5	4-Methylphenol	ND	2900	150	ug/kg	
88-75-5	2-Nitrophenol	ND	2900	78	ug/kg	
100-02-7	4-Nitrophenol	ND	5800	550	ug/kg	
87-86-5	Pentachlorophenol	ND	2900	200	ug/kg	
108-95-2	Phenol	ND	1500	83	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2900	73	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2900	72	ug/kg	
83-32-9	Acenaphthene	ND	580	78	ug/kg	
208-96-8	Acenaphthylene	ND	580	58	ug/kg	
120-12-7	Anthracene	ND	580	70	ug/kg	
56-55-3	Benzo(a)anthracene	ND	580	75	ug/kg	
50-32-8	Benzo(a)pyrene	ND	580	63	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	580	73	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	580	58	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	580	88	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1500	74	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	59	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	79	ug/kg	
106-47-8	4-Chloroaniline	ND	2900	73	ug/kg	
86-74-8	Carbazole	ND	580	69	ug/kg	
218-01-9	Chrysene	ND	580	72	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	68	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	89	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1500	89	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28641-9	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1500	75	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1500	83	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1500	77	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2900	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2900	73	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1500	150	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	580	69	ug/kg	
132-64-9	Dibenzofuran	ND	580	80	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	45	ug/kg	
84-66-2	Diethyl phthalate	73.7	1500	73	ug/kg	J
131-11-3	Dimethyl phthalate	ND	1500	84	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	54	ug/kg	
206-44-0	Fluoranthene	ND	580	80	ug/kg	
86-73-7	Fluorene	ND	580	77	ug/kg	
118-74-1	Hexachlorobenzene	ND	1500	91	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	84	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2900	730	ug/kg	
67-72-1	Hexachloroethane	ND	1500	70	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	580	64	ug/kg	
78-59-1	Isophorone	ND	1500	67	ug/kg	
91-57-6	2-Methylnaphthalene	ND	580	74	ug/kg	
88-74-4	2-Nitroaniline	ND	2900	73	ug/kg	
99-09-2	3-Nitroaniline	ND	2900	160	ug/kg	
100-01-6	4-Nitroaniline	ND	2900	73	ug/kg	
91-20-3	Naphthalene	ND	580	93	ug/kg	
98-95-3	Nitrobenzene	ND	1500	79	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	83	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	88	ug/kg	
85-01-8	Phenanthrene	ND	580	79	ug/kg	
129-00-0	Pyrene	ND	580	68	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1500	80	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 85.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5600	ug/kg	JN
	Total TIC, Semi-Volatile		5600	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-9	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 B	0.94	0.14	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.2	0.94	0.20	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	75.4	4.7	0.069	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.32 B	0.38	0.022	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.23 B	0.38	0.040	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	21700	470	5.9	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	17.2	0.94	0.090	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.7	4.7	0.044	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	16.0	2.4	0.52	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	14300	9.4	0.82	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	78.8	0.94	0.16	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	14300	470	4.8	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	399	1.4	0.038	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.018 B	0.035	0.0078	mg/kg	1	03/06/14	03/06/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	12.3	3.8	0.041	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	765	470	8.1	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 U	0.94	0.33	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	1220	470	3.1	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.19 B	0.94	0.13	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	25.9	0.94	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	53.4	1.9	0.15	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

(1) Instrument QC Batch: MA16822

(2) Instrument QC Batch: MA16824

(3) Prep QC Batch: MP22585

(4) Prep QC Batch: MP22602

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-9	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.4		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

4.25  
4

# Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-9A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0068 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.85	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0034 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.031 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0080 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.80			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.11	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.8			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/05/14	SA SW846 7470A <sup>1</sup>
Nickel	0.026 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.19			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16814
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22591
- (4) Prep QC Batch: MP22594

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-9B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.025		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.26 B		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0012 B		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0012 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.042		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.013 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.063		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	37.6		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.42		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.62		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.034 B		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.21		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16806
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22578
- (4) Prep QC Batch: MP22583

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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<b>FED-EX Tracking #</b> Accutest Quote #		<b>Bottle Order Control #</b> Accutest Job # <b>MC28641</b>																		
<b>Client / Reporting Information</b> Company Name: <b>Western Solutions</b> Street Address: <b>750 F. Banker Ct Ste 500</b> City: <b>Newnan Hills FL 32061</b> Project Contact: <b>S. Babusankumar</b> Phone #: <b>847-918-4010</b> Fax #: <b>-4055</b> T-Walls <b>847-918-4130</b>		<b>Project Information</b> Project Name: <b>IDET-048 McHenry County</b> Billing Information (if different from Report to): Company Name: Street Address: City: State Zip: Attention: PO#:																		
<b>Requested Analysis (see TEST CODE sheet)</b> DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank		<b>Matrix Codes</b> VCS SUDS Total Metals TCUR/SPLP metals PH																		
<b>Accutest Sample #</b> Field ID / Point of Collection MEGNDI Viol #	<b>Collection</b> Date Time Sampled by Matrix # of bottles	<b>Number of preserved Bottles</b> HCl NaOH HNO3 H2SO4 DI Water NEON ENCORE Blankette																		
-1	LN-2(0.5-1.5)-022814	2-28-14	1135	TW	S	3	3													
-2	AL2-10(0.5-1.5)-022814		1150																	
-3	AL2-11(0.5-1.5)-022814		1205																	
-4	FS1-1(0.5-1.5)-022814		1220																	
-5	SBU-1(0.5-1.5)-022814		1230																	
-6	SBU-2(0.5-1.5)-022814		1240																	
-7	AL1-9(0.5-1.5)-022814		1255																	
-8	AL1-9(0.5-1.5)-022814		1255																	
-9	AL1-10(0.5-1.5)-022814		1310																	
-10	AL2-1(0.5-1.5)-022814		1345																	14B
-11	AL2-2(0.5-1.5)-022814		1400																	
-12	AL2-3(0.5-1.5)-022814	2-28-14	1420	TW	S	3	3													
<b>Turnaround Time (Business days)</b> <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		<b>Approved By (Accutest PM) / Date:</b> _____ _____ _____ _____ _____																		
<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other																		
<b>Comments / Special Instructions</b>																				
<b>Sample Custody must be documented below each time samples change possession, including courier delivery.</b>																				
<b>Relinquished by:</b> 1 <i>[Signature]</i>	<b>Date Time:</b> 2-28-14/1455	<b>Received By:</b> 2 <i>[Signature]</i>	<b>Date Time:</b> 2																	
<b>Relinquished by:</b> 3 <i>[Signature]</i>	<b>Date Time:</b> 3/1/14 10:00	<b>Received By:</b> 4 <i>[Signature]</i>	<b>Date Time:</b> 4																	
<b>Relinquished by:</b> 5	<b>Date Time:</b>	<b>Received By:</b>	<b>Date Time:</b>																	
<b>Custody Seal #</b>		<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact																		
		<b>On Ice Cooler Temp.</b> 0.5°, 0.5°, 1.0°																		

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**MC28641: Chain of Custody**

**Page 1 of 2**



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
17817 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.348467929 Longitude: -88.545751334  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.348467929 Longitude: -88.545751334

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION RE1-2 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-4. SEE FIGURE 3-2 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28640

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



**Summary Table of ISGS Site No. 2792-4**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE1-2(0.5-1.5)-022714	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	2/27/2014	
Location ID	RE1-2	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.8	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	3.5	30
Ethylbenzene	1.2 J	13000
Methylene chloride	1.6 J	20
Toluene	6.7	12000
Xylene (Total)	3.7	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)anthracene	29.7 J	900 / 1100 / 1800
Benzo(a)pyrene	35.8 J	90 / 1300 / 2100
Benzo(b)fluoranthene	45.6 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	71.8 J	2300000
Benzo(k)fluoranthene	24.9 J	9000
Butyl benzyl phthalate	29.2 J	930000
Chrysene	23.9 J	88000
Dibenzo(a,h)anthracene	41 J	90 / 200 / 420
Fluoranthene	33.8 J	3100000
Indeno(1,2,3-cd)pyrene	58.9 J	900 / 900 / 1600
Phenanthrene	15.4 J	210000
Pyrene	30.2 J	2300000
<b>Total Metals (mg/kg)</b>		
Antimony, Total	0.58 J	5
Arsenic, Total	6.7	11.3 / 13
Barium, Total	23.6	1500
Beryllium, Total	0.11 J	22
Cadmium, Total	0.075 J	5.2
Calcium, Total	144000	---
Chromium, Total	9.6	21
Cobalt, Total	3.7 J	20
Copper, Total	13.9 J	2900
Iron, Total	10400	15000 / 15900
Lead, Total	49.1	107
Magnesium, Total	45600	325000
Manganese, Total	417 J	630 / 636
Mercury, Total	0.011 J	0.89
Nickel, Total	9.3	100
Potassium, Total	590	---
Sodium, Total	1290	---
Vanadium, Total	16.1	550
Zinc, Total	40.4 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.31 J	2
Cadmium, TCLP	0.0013 J	0.005
Chromium, TCLP	0.002 J	0.1
Cobalt, TCLP	0.003 J	1
Lead, TCLP	0.027	0.0075
Manganese, TCLP	1.8	0.15
Nickel, TCLP	0.016 J	0.1
Zinc, TCLP	0.047 J	5

**Summary Table of ISGS Site No. 2792-4**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE1-2(0.5-1.5)-022714	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/27/2014	
Location ID	RE1-2	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.0031 J	0.05
Barium, SPLP	0.028 J	2
Chromium, SPLP	0.011	0.1
Cobalt, SPLP	0.0005 J	1
Copper, SPLP	0.0075 J	0.65
Iron, SPLP	2.6	5
Lead, SPLP	0.016	0.0075
Manganese, SPLP	0.044	0.15
Nickel, SPLP	0.0029 J	0.1
Zinc, SPLP	0.029 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28640

Sampling Date: 02/27/14

Report to:

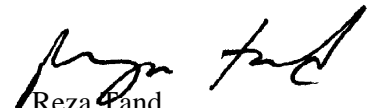
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **305**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> RE1-2(0.5-1.5)-022714	
<b>Lab Sample ID:</b> MC28640-10	<b>Date Sampled:</b> 02/27/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63573.D	1	03/05/14	KD	n/a	n/a	MSM2228

Run #1	Initial Weight	Final Volume
Run #2	5.42 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.0	ug/kg	
71-43-2	Benzene	3.5	0.53	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.3	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.81	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	1.2	2.1	0.74	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.3	0.58	ug/kg	
75-09-2	Methylene chloride	1.6	2.1	0.57	ug/kg	J
100-42-5	Styrene	ND	5.3	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	6.7	5.3	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> RE1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-10	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.97	ug/kg	
1330-20-7	Xylene (total)	3.7	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	49	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	23	ug/kg	JN
109-66-0	Pentane	6.48	20	ug/kg	JN
3769-23-1	1-Hexene, 4-methyl-	8.15	7.2	ug/kg	JN
110-54-3	Hexane	8.46	11	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	9.17	8.2	ug/kg	JN
110-82-7	Cyclohexane	9.92	8.7	ug/kg	JN
589-34-4	Hexane, 3-methyl-	10.51	6.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
	Total TIC, Volatile		145.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.28  
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## Report of Analysis

<b>Client Sample ID:</b>	RE1-2(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-10	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37266.D	1	03/06/14	KR	03/03/14	OP37037	MSR1376
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	29.7	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	35.8	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	45.6	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	71.8	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	24.9	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	29.2	280	11	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	23.9	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE1-2(0.5-1.5)-022714	<b>Date Sampled:</b>	02/27/14
<b>Lab Sample ID:</b>	MC28640-10	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	41.0	110	13	ug/kg	J
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	44.3	280	30	ug/kg	JB
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	38.2	280	14	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	56.1	280	10	ug/kg	JB
206-44-0	Fluoranthene	33.8	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	58.9	110	12	ug/kg	J
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	15.4	110	15	ug/kg	J
129-00-0	Pyrene	30.2	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RE1-2(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-10 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 86.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5900	ug/kg	JN
	Total TIC, Semi-Volatile		5900	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RE1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-10	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.58 B	0.94	0.14	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.7	0.94	0.20	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	23.6	4.7	0.068	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.11 B	0.38	0.022	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.075 B	0.38	0.040	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	144000	4700	59	mg/kg	10	03/03/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	9.6	0.94	0.089	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.7 B	4.7	0.044	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	13.9	2.4	0.52	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	10400	9.4	0.82	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	49.1	0.94	0.16	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	45600	470	4.8	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	417	1.4	0.038	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.037	0.0081	mg/kg	1	03/04/14	03/05/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	9.3	3.8	0.041	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	590	470	8.1	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.94	0.33	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	1290	470	3.1	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.13 U	0.94	0.13	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	16.1	0.94	0.12	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	40.4	1.9	0.15	mg/kg	1	03/03/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16810
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22576
- (5) Prep QC Batch: MP22588

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-10	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.28  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.4		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.8		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> RE1-2(0.5-1.5)-022714 <b>Lab Sample ID:</b> MC28640-10A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/27/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 86.4
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.31 B	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0020 B	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0030 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.027	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.8			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/06/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.047 B			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16813
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22590
- (4) Prep QC Batch: MP22593

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.29  
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## Report of Analysis

<b>Client Sample ID:</b> RE1-2(0.5-1.5)-022714	<b>Date Sampled:</b> 02/27/14
<b>Lab Sample ID:</b> MC28640-10B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0031 B		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.028 B		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00025 U		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.011		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.00050 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.0075 B		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	2.6		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.016		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.044		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.0029 B		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.029 B		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16805
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22577
- (4) Prep QC Batch: MP22582

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.30  
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<b>FED-EX Tracking #</b> <b>Accutest Quote #</b>		<b>Bottle Order Control #</b> <b>Accutest Job #</b> MC28640																							
<b>Client / Reporting Information</b>		<b>Project Information</b>																							
Company Name: <u>Weston Solutions</u>		Project Name: <u>I DIT-048</u>																							
Street Address: <u>750 E. Banker Lt Ste 500</u>		Billing Information (if different from Report to):																							
City: <u>Normal Hills IL</u> State: <u>60001</u>		Company Name:																							
Project Contact: <u>S. Babinsu Kumar</u> E-mail:		Street Address:																							
Phone #: <u>847-918-4018</u> Fax #: <u>-4055</u>		City: State: Zip:																							
Sampler(s) Name(s): <u>T. Wells</u> Phone #: <u>847-918-4130</u>		Client POA: Project Manager: Attention: PO#:																							
Accutest Sample #	Field ID / Point of Collection	MEQMDI Vial #	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles							VOCs	SVCs	Total Metals	TCU/PCU Methods	PH			LAB USE ONLY			
								HCl	NaOH	INOC3	H2SO4	NO3E	D3 Water	MECH									ENCORE	Biofilm	
-1	VLI-1(0.5-1.5)-022714		2-27-14	0815	TW	S	3											X	X	X	X	X			
-2	VLI-1(0.5-1.5)-022714			0815																					
-3	ALI-1(0.5-1.5)-022714			0835																					
-4	ALI-2(0.5-1.5)-022714			0855																					
-5	ALI-3(0.5-1.5)-022714			0910																					
-6	ALI-4(0.5-1.5)-022714			0925																					
-7	ALI-5(0.5-1.5)-022714			0940																					
-8	ALI-6(0.5-1.5)-022714			1000																					
-9	REI-1(0.5-1.5)-022714			1015																					
-10	REI-2(0.5-1.5)-022714			1030																					
-11	ALI-7(0.5-1.5)-022714			1040																					
-12	ALI-8(0.5-1.5)-022714		2-27-14	1055	TW	S	3												X	X	X	X	X		
<b>Turnaround Time (Business days)</b>														<b>Data Deliverable Information</b>				<b>Comments / Special Instructions</b>							
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY														<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____				Commercial "A" = Results Only Commercial "B" = Results + QC Summary							
<b>Sample Custody must be documented below each time samples change possession, including courier delivery.</b>																									
<b>Relinquished by Sampler:</b> 1 <u>Zimotey A. Wall</u> Date Time: <u>2-28-14/1455</u> <b>Relinquished by Sampler:</b> 3 <u>FP</u> Date Time: <u>3/1/14 10:00</u>												<b>Received By:</b> 1 <u>[Signature]</u> Date Time: <u>2/28/14 2:58</u> <b>Received By:</b> 3 <u>[Signature]</u> Date Time: <u>[Blank]</u>													
<b>Relinquished by:</b> 4 <u>[Blank]</u> Date Time: <u>[Blank]</u>												<b>Received By:</b> 4 <u>[Blank]</u> Date Time: <u>[Blank]</u>													
<b>Relinquished by:</b> 5 <u>[Blank]</u> Date Time: <u>[Blank]</u>																									
Custody Seal # _____ Intact _____ Preserved where applicable _____ _____ Not intact _____												On Ice _____ Cooler Temp. _____ <u>[Blank]</u> <u>0.5° 0.5° 1.0°</u>													

51  
5

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes
Company Name <i>Weston Solutions</i>		Project Name <i>IDOT-048</i>																				DW - Drinking Water
Street Address <i>750 E. Bunken Ct - Ste 500</i>		Street:																				GW - Ground Water
City State Zip <i>Norron Hills IL 60061</i>		City:																				WV - Water
Project Contact <i>S. Babusukumar</i>		Billing Information (If different from Report to): Company Name:																				SW - Surface Water
Phone # Fax # <i>847-918-4018 -4055</i>		Street Address:																				SO - Soil
Sampler(s) Name(s) Phone # <i>T. Walsh 847-918-4130</i>		City State Zip:																				SL - Sludge
		Attention: PO#:																				SED-Sediment
		Collection																				OI - Oil
Associated Sample #		Field ID / Point of Collection		MECH/DI Vial #		Date		Time		Sampled by		Matrix		# of bottles		Number of preserved bottles						LID - Other Liquid
																						AIR - Air
																						SOL - Other Solid
																						WP - Wipe
																						FB-Field Blank
																						EB- Equipment Blank
																						RB- Rinse Blank
																						TB-Trip Blank
																						LAB USE ONLY
										Data Deliverable Information										Comments / Special Instructions		
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush TJA data available VIA Lablink										Approved By (Accutest PM): / Date: _____ _____ _____ _____												
										<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary												
Sample Custody must be documented by log each time samples change possession, including courier delivery.																						
Relinquished by Sampler: <i>1 Timothy A. Walsh</i>		Date Time: <i>2-28-14 / 14:55</i>		Received By: <i>[Signature]</i>		Date Time: <i>2/28/14 2:58</i>		Relinquished By:		Date Time:		Received By: <i>2 FY</i>										
Relinquished by Sampler: <i>3 FY</i>		Date Time: <i>3/1/14 10:00</i>		Received By: <i>[Signature]</i>		Date Time:		Relinquished By:		Date Time:		Received By:										
Relinquished by: <i>5</i>		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:										

5.1  
5

MC28640: Chain of Custody

Page 2 of 3



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

17604 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD dddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.346256980 Longitude: -88.541978247

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.346256980 Longitude: -88.541978247

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION SBV-2 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-5. SEE FIGURE 3-2 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28641


**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



**Summary Table of ISGS Site No. 2792-5**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	SBV-2(0.5-1.5)-022814	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	2/28/2014	
Location ID	SBV-2	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	9	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Acetone	110 J	25000
Benzene	1	30
Carbon disulfide	1.4 J	9000
Methyl ethyl ketone	16.8 J	17000
Methylene chloride	4	20
Toluene	1.8 J	12000
Xylene (Total)	0.86 J	5600
<b>SVOCs (ug/kg)</b>		
Fluoranthene	84.2 J	3100000
Pyrene	88.6 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	3.6	11.3 / 13
Barium, Total	85.6	1500
Beryllium, Total	0.27 J	22
Cadmium, Total	0.22 J	5.2
Calcium, Total	13400	---
Chromium, Total	10.4	21
Cobalt, Total	4.5	20
Copper, Total	11.1	2900
Iron, Total	10000	15000 / 15900
Lead, Total	56.5	107
Magnesium, Total	8170	325000
Manganese, Total	220	630 / 636
Mercury, Total	0.0084 J	0.89
Nickel, Total	10.4	100
Potassium, Total	675	---
Silver, Total	0.15 J	4.4
Sodium, Total	3440	---
Thallium, Total	0.28 J	2.6
Vanadium, Total	23.3	550
Zinc, Total	46.1	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.22 J	2
Cadmium, TCLP	0.0015 J	0.005
Cobalt, TCLP	0.0035 J	1
Copper, TCLP	0.011 J	0.65
Lead, TCLP	0.01	0.0075
Manganese, TCLP	1.9 J	0.15
Nickel, TCLP	0.015 J	0.1
Selenium, TCLP	0.0049 J	0.05
Zinc, TCLP	0.033 J	5

**Summary Table of ISGS Site No. 2792-5**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	SBV-2(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	
Location ID	SBV-2	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.024	0.05
Barium, SPLP	0.22 J	2
Beryllium, SPLP	0.0009 J	0.004
Cadmium, SPLP	0.0008 J	0.005
Chromium, SPLP	0.04	0.1
Cobalt, SPLP	0.011 J	1
Copper, SPLP	0.052	0.65
Iron, SPLP	36.7 J	5
Lead, SPLP	0.34	0.0075
Manganese, SPLP	0.66	0.15
Nickel, SPLP	0.036 J	0.1
Zinc, SPLP	0.22	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28641

Sampling Date: 02/28/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **228**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-6	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63599.D	1	03/06/14	KD	n/a	n/a	MSM2229
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.93 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	110	11	3.2	ug/kg	
71-43-2	Benzene	1.0	0.57	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.69	ug/kg	
78-93-3	2-Butanone (MEK)	16.8	11	3.5	ug/kg	
75-15-0	Carbon disulfide	1.4	5.7	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.86	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.79	ug/kg	
591-78-6	2-Hexanone	ND	11	0.86	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.62	ug/kg	
75-09-2	Methylene chloride	4.0	2.3	0.61	ug/kg	
100-42-5	Styrene	ND	5.7	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	1.8	5.7	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-6	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.65	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	0.86	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	17	ug/kg	JN
2658-24-4	Aziridine, 2,2-dimethyl-	8.46	12	ug/kg	JN
142-82-5	Heptane	10.51	6.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.4	ug/kg	JN
	Total TIC, Volatile		41.7	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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4

## Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-6	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37256.D	5	03/06/14	KR	03/04/14	OP37036	MSR1375
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	190	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	67	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-6	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	84.2	550	76	ug/kg	J
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	89	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	ND	550	75	ug/kg	
129-00-0	Pyrene	88.6	550	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	86%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-6 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 88.9
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.72	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-6	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.12 U	0.82	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	3.6	0.82	0.17	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	85.6	4.1	0.060	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.27 B	0.33	0.020	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.22 B	0.33	0.035	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	13400	410	5.2	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	10.4	0.82	0.078	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	4.5	4.1	0.039	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	11.1	2.1	0.46	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	10000	8.2	0.71	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	56.5	0.82	0.14	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	8170	410	4.2	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	220	1.2	0.033	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0084 B	0.036	0.0079	mg/kg	1	03/06/14	03/06/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	10.4	3.3	0.036	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	675	410	7.0	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.28 U	0.82	0.28	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.15 B	0.41	0.10	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	3440	410	2.7	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.28 B	0.82	0.11	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	23.3	0.82	0.11	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	46.1	1.6	0.13	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16822  
(2) Instrument QC Batch: MA16824  
(3) Prep QC Batch: MP22585  
(4) Prep QC Batch: MP22602

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-6 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 88.9
--	--

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.9		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	9.0		su	1	03/03/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-6A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.22 B	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0035 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.010	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.9			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/05/14	SA SW846 7470A <sup>1</sup>
Nickel	0.015 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0049 B	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.033 B			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16814
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22591
- (4) Prep QC Batch: MP22594

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> SBV-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-6B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.024		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.22 B		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00090 B		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.040		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.011 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.052		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	36.7		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.34		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.66		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.036 B		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.22		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16806
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22578
- (4) Prep QC Batch: MP22583

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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**CHAIN OF CUSTODY**

Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)										Matrix Codes													
Company Name <b>Western Solutions</b>		Project Name <b>IDET-048 McHenry County</b>		Requested Analysis <b>NDC's SUD's Total Metals TCUP/SPUP metals PH</b>										Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank													
Street Address <b>750 F. Bunker Ct Ste 500</b>		Street:																									
City <b>Neville Hills FL 32061</b>		City:																									
State <b>FL</b>		State:																									
Zip <b>32061</b>		Zip:																									
Project Contact <b>S. Babusankumar</b>		Project#																									
E-mail		Street Address																									
Phone # <b>847-918-4010</b>		Client PC#																									
Fax # <b>-4055</b>		City																									
State		State																									
Zip		Zip																									
Sampler(s) Name(s) <b>T. Walls</b>		Project Manager																									
Phone # <b>847-918-4130</b>		Attention:																									
PO#		PO#																									
Accutest Sample #		MEQNCDI Viol #		Collection				Number of preserved Bottles								LAB USE ONLY											
Field ID / Point of Collection		Date		Time		Sampled by		Matrix		# of bottles		NCL		NCSH		HNDS		I2304		DI Water		NEOH		ENCORE		Blank/Re	
-1 LN-2(0.5-1.5)-022814		2-28-14		1135		TW		S		3																	
-2 AL2-10(0.5-1.5)-022814				1150																							
-3 AL2-11(0.5-1.5)-022814				1205																							
-4 FS1-1(0.5-1.5)-022814				1220																							
-5 SBU-1(0.5-1.5)-022814				1230																							
-6 SBU-2(0.5-1.5)-022814				1240																							
-7 AL1-9(0.5-1.5)-022814				1255																							
-8 AL1-9(0.5-1.5)-022814D				1255																							
-9 AL1-10(0.5-1.5)-022814				1310																							
-10 AL2-1(0.5-1.5)-022814				1345																						14B	
-11 AL2-2(0.5-1.5)-022814				1400																							
-12 AL2-3(0.5-1.5)-022814		2-28-14		1420		TW		S		3																	
Turnaround Time (Business days)		Approved By (Accutest PM) / Date:		Data Deliverable Information										Comments / Special Instructions													
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other																							
Emergency & Rush T/A data available VIA Lablink																											
Sample Custody must be documented below each time samples change possession, including courier delivery.														CHICAGO SC													
Relinquished by Sampler: 1 <i>[Signature]</i>		Date Time: 2-28-14/1455		Received By: <i>[Signature]</i>		Date Time: 2/29/14 2:53		Relinquished By:		Date Time:		Received By: 2 <i>[Signature]</i>															
Relinquished by Sampler: 3 <i>[Signature]</i>		Date Time: 3/1/14 10:00		Received By: <i>[Signature]</i>		Date Time:		Relinquished By:		Date Time:		Received By: 4															
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact		On Ice <input type="checkbox"/> Cooler Temp. 0.5° 0.5° 1.0°															

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MC28641: Chain of Custody

Page 1 of 2



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
17422 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.345345424 Longitude: -88.540602880  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.345345424 Longitude: -88.540602880Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION AL1-10 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-7. SEE FIGURE 3-2 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28641


**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14

Date:





**Summary Table of ISGS Site No. 2792-7**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL1-10(0.5-1.5)-022814	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	2/28/2014	
Location ID	AL1-10	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Acetone	195	25000
Benzene	2	30
Ethylbenzene	0.81 J	13000
Methyl ethyl ketone	39.7	17000
Methylene chloride	5.2	20
Toluene	3.4 J	12000
Xylene (Total)	2.2 J	5600
<b>SVOCs (ug/kg)</b>		
Diethylphthalate	73.7 J	470000
<b>Total Metals (mg/kg)</b>		
Antimony, Total	0.14 J	5
Arsenic, Total	6.2	11.3 / 13
Barium, Total	75.4	1500
Beryllium, Total	0.32 J	22
Cadmium, Total	0.23 J	5.2
Calcium, Total	21700	---
Chromium, Total	17.2	21
Cobalt, Total	5.7	20
Copper, Total	16	2900
Iron, Total	14300	15000 / 15900
Lead, Total	78.8	107
Magnesium, Total	14300	325000
Manganese, Total	399	630 / 636
Mercury, Total	0.018 J	0.89
Nickel, Total	12.3	100
Potassium, Total	765	---
Sodium, Total	1220	---
Thallium, Total	0.19 J	2.6
Vanadium, Total	25.9	550
Zinc, Total	53.4	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0068 J	0.05
Barium, TCLP	0.85	2
Cadmium, TCLP	0.0034 J	0.005
Cobalt, TCLP	0.031 J	1
Copper, TCLP	0.008 J	0.65
Iron, TCLP	0.8	5
Lead, TCLP	0.11	0.0075
Manganese, TCLP	5.8 J	0.15
Nickel, TCLP	0.026 J	0.1
Zinc, TCLP	0.19	5

**Summary Table of ISGS Site No. 2792-7**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL1-10(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	
Location ID	AL1-10	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.025	0.05
Barium, SPLP	0.26 J	2
Beryllium, SPLP	0.0012 J	0.004
Cadmium, SPLP	0.0012 J	0.005
Chromium, SPLP	0.042	0.1
Cobalt, SPLP	0.013 J	1
Copper, SPLP	0.063	0.65
Iron, SPLP	37.6 J	5
Lead, SPLP	0.42	0.0075
Manganese, SPLP	0.62	0.15
Nickel, SPLP	0.034 J	0.1
Zinc, SPLP	0.21	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28641

Sampling Date: 02/28/14

Report to:

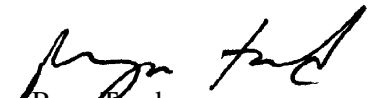
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **228**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28641-9	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.4
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63602.D	1	03/06/14	KD	n/a	n/a	MSM2229
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.98 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	195	12	3.3	ug/kg	
71-43-2	Benzene	2.0	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	39.7	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.89	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	0.81	2.4	0.81	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.89	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.63	ug/kg	
75-09-2	Methylene chloride	5.2	2.4	0.62	ug/kg	
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	3.4	5.9	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-9	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	2.2	2.4	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-28-5	Isobutane	4.78	68	ug/kg	JN
106-97-8	Butane	5.11	27	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	27	ug/kg	JN
19781-68-1	Cyclopropane, 1-ethyl-2-methyl-, c	9.92	11	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	13	ug/kg	JN
	Total TIC, Volatile		146	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b>	AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28641-9	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37286.D	5	03/06/14	KR	03/04/14	OP37036	MSR1376
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1500	66	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2900	74	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2900	84	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2900	470	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5800	730	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	360	ug/kg	
95-48-7	2-Methylphenol	ND	2900	120	ug/kg	
106-44-5	4-Methylphenol	ND	2900	150	ug/kg	
88-75-5	2-Nitrophenol	ND	2900	78	ug/kg	
100-02-7	4-Nitrophenol	ND	5800	550	ug/kg	
87-86-5	Pentachlorophenol	ND	2900	200	ug/kg	
108-95-2	Phenol	ND	1500	83	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2900	73	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2900	72	ug/kg	
83-32-9	Acenaphthene	ND	580	78	ug/kg	
208-96-8	Acenaphthylene	ND	580	58	ug/kg	
120-12-7	Anthracene	ND	580	70	ug/kg	
56-55-3	Benzo(a)anthracene	ND	580	75	ug/kg	
50-32-8	Benzo(a)pyrene	ND	580	63	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	580	73	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	580	58	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	580	88	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1500	74	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	59	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	79	ug/kg	
106-47-8	4-Chloroaniline	ND	2900	73	ug/kg	
86-74-8	Carbazole	ND	580	69	ug/kg	
218-01-9	Chrysene	ND	580	72	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	68	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	89	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1500	89	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28641-9	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1500	75	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1500	83	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1500	77	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2900	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2900	73	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1500	150	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	580	69	ug/kg	
132-64-9	Dibenzofuran	ND	580	80	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	45	ug/kg	
84-66-2	Diethyl phthalate	73.7	1500	73	ug/kg	J
131-11-3	Dimethyl phthalate	ND	1500	84	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	54	ug/kg	
206-44-0	Fluoranthene	ND	580	80	ug/kg	
86-73-7	Fluorene	ND	580	77	ug/kg	
118-74-1	Hexachlorobenzene	ND	1500	91	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	84	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2900	730	ug/kg	
67-72-1	Hexachloroethane	ND	1500	70	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	580	64	ug/kg	
78-59-1	Isophorone	ND	1500	67	ug/kg	
91-57-6	2-Methylnaphthalene	ND	580	74	ug/kg	
88-74-4	2-Nitroaniline	ND	2900	73	ug/kg	
99-09-2	3-Nitroaniline	ND	2900	160	ug/kg	
100-01-6	4-Nitroaniline	ND	2900	73	ug/kg	
91-20-3	Naphthalene	ND	580	93	ug/kg	
98-95-3	Nitrobenzene	ND	1500	79	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	83	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	88	ug/kg	
85-01-8	Phenanthrene	ND	580	79	ug/kg	
129-00-0	Pyrene	ND	580	68	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1500	80	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 85.4
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5600	ug/kg	JN
	Total TIC, Semi-Volatile		5600	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4



# Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-9	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 B	0.94	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.2	0.94	0.20	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	75.4	4.7	0.069	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.32 B	0.38	0.022	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.23 B	0.38	0.040	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	21700	470	5.9	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	17.2	0.94	0.090	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.7	4.7	0.044	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	16.0	2.4	0.52	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	14300	9.4	0.82	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	78.8	0.94	0.16	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	14300	470	4.8	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	399	1.4	0.038	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.018 B	0.035	0.0078	mg/kg	1	03/06/14	03/06/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	12.3	3.8	0.041	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	765	470	8.1	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 U	0.94	0.33	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	1220	470	3.1	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.19 B	0.94	0.13	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	25.9	0.94	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	53.4	1.9	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22585
- (4) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-9 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 85.4
---	--

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.4		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/03/14	MA	SW846 9045D

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-9A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 85.4
--	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0068 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.85	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0034 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.031 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0080 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.80			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.11	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.8			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/05/14	SA SW846 7470A <sup>1</sup>
Nickel	0.026 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.19			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16814
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22591
- (4) Prep QC Batch: MP22594

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL1-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-9B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.025		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.26 B		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0012 B		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0012 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.042		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.013 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.063		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	37.6		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.42		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.62		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.034 B		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.21		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16806
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22578
- (4) Prep QC Batch: MP22583

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
Accutest Quote # \_\_\_\_\_ Accutest Job # MC28641

Client / Reporting Information		Project Information			Requested Analysis (see TEST CODE sheet)												Matrix Codes										
Company Name <u>Western Solutions</u>		Project Name <u>IDET-048 McHenry County</u>			<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;"> <p>Requested Analysis (if different from Report to)</p> <p>Company Name</p> <p>Street Address</p> <p>City State Zip</p> <p>Attention: PO#</p> </div> <div style="width: 60%; border: 1px solid black; padding: 5px;"> <p style="font-size: small;">DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIO - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB- Rinse Blank TB-Trip Blank</p> </div> <div style="width: 15%;"> <p>Matrix Codes</p> </div> </div>												<p>LAB USE ONLY</p>										
Street Address <u>750 F. Banker Ct Ste 500</u>		Billing Information (if different from Report to)																									
City State Zip <u>Newnan Hills FL 320061</u>		Street Address																									
Project Contact <u>S. Babusankumar</u>		City State Zip																									
Phone # Fax # <u>847-918-4010 -4055</u>		Project Manager																									
Sampler(s) Name(s) Phone # <u>T. Walls 847-918-4130</u>																											
Accutest Sample #	Field ID / Point of Collection	MEQNCDI Viol #	Collection			Number of preserved Bottles												LAB USE ONLY									
			Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	DI Water	NEOH	ENCORE	Blankette												
-1	<u>LN-2(0.5-1.5)-022814</u>		<u>2-28-14</u>	<u>1135</u>	<u>TW</u>	<u>5</u>	<u>3</u>																				
-2	<u>AL2-10(0.5-1.5)-022814</u>			<u>1150</u>																							
-3	<u>AL2-11(0.5-1.5)-022814</u>			<u>1205</u>																							
-4	<u>FS1-1(0.5-1.5)-022814</u>			<u>1220</u>																							
-5	<u>SBU-1(0.5-1.5)-022814</u>			<u>1230</u>																							
-6	<u>SBU-2(0.5-1.5)-022814</u>			<u>1240</u>																							
-7	<u>ALI-9(0.5-1.5)-022814</u>			<u>1255</u>																							
-8	<u>ALI-9(0.5-1.5)-022814D</u>			<u>1255</u>																							
-9	<u>ALI-10(0.5-1.5)-022814</u>			<u>1310</u>																							
-10	<u>AL2-1(0.5-1.5)-022814</u>			<u>1345</u>																					<u>14B</u>		
-11	<u>AL2-2(0.5-1.5)-022814</u>			<u>1400</u>																							
-12	<u>AL2-3(0.5-1.5)-022814</u>		<u>2-28-14</u>	<u>1420</u>	<u>TW</u>	<u>5</u>	<u>3</u>																				
Turnaround Time (Business days)												Data Deliverable Information												Comments / Special Instructions			
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>		Approved By (Accutest PM) / Date:			<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>																						
Sample Custody must be documented below each time samples change possession, including courier delivery.												CHICAGO															
Relinquished by Sampler: <u>1 Timothy. Walls</u>		Date Time: <u>2-28-14/1455</u>		Received By: <u>[Signature]</u>		Date Time: <u>2/28/14 2:53</u>		Relinquished By:		Date Time:		Received By: <u>FX</u>															
Relinquished by Sampler: <u>3 FX</u>		Date Time: <u>3/1/14 10:00</u>		Received By: <u>[Signature]</u>		Date Time:		Relinquished By:		Date Time:		Received By:															
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact		<input type="checkbox"/> On Ice    Cooler Temp.		<u>0.5° 0.5° 1.0°</u>													

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MC28641: Chain of Custody  
Page 1 of 2



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16000 to 17000 block of US 14 (between west of Park Land Drive to west of Dunham Road)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.340190501 Longitude: -88.524124986  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.340190501 Longitude: -88.524124986Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS AL2-2, AL2-4, AL2-5, AL2-7, AL2-9, AND AL2-10 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-8. SEE FIGURES 3-3 AND 3-4 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC2841, MC28642, AND MC28683

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/17

Seal:

**Summary Table of ISGS Site No. 2792-8**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL2-2(0.5-1.5)-022814	AL2-4(0.5-1.5)-022814	AL2-5(0.5-1.5)-022814	AL2-7(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	2/28/2014	2/28/2014	2/28/2014	
Location ID	AL2-2	AL2-4	AL2-5	AL2-7	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.6	8.7	8.3	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Acetone	89.6	ND	ND	ND	25000
Benzene	1.2	1.4	1.7	2.2 J	30
Carbon disulfide	0.9 J	1.3 J	3.5 J	0.72 J	9000
Ethylbenzene	ND	ND	ND	ND	13000
Methyl ethyl ketone	ND	ND	ND	ND	17000
Methylene chloride	4.6	3.9	4.2	4.4	20
Toluene	1.6 J	2.1 J	2.5 J	2.5 J	12000
Xylene (Total)	0.52 J	0.68 J	0.99 J	1.1 J	5600
<b>SVOCs (ug/kg)</b>					
Acenaphthene	ND	ND	ND	ND	570000
Anthracene	ND	ND	ND	ND	1.20E+07
Benzo(a)anthracene	132 J	86.6 J	61.3 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	117 J	82.9 J	62.5 J	228 J	90 / 1300 / 2100
Benzo(b)fluoranthene	192 J	118 J	77.9 J	210 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	214 J	132 J	100 J	582	2300000
Benzo(k)fluoranthene	ND	47.5 J	ND	ND	9000
bis(2-Ethylhexyl)phthalate	ND	32.5 J	ND	ND	46000
Butyl benzyl phthalate	ND	ND	55.7 J	ND	930000
Carbazole	ND	ND	ND	ND	600
Chrysene	110 J	70.1 J	51.8 J	ND	88000
Fluoranthene	214 J	136 J	84.5 J	193 J	3100000
Fluorene	ND	ND	ND	ND	560000
Indeno(1,2,3-cd)pyrene	98.8 J	55.4 J	35.6 J	ND	900 / 900 / 1600
Phenanthrene	107 J	70.2 J	48.4 J	85.1 J	210000
Pyrene	183 J	124 J	76 J	197 J	2300000
<b>Total Metals (mg/kg)</b>					
Antimony, Total	0.57 J	0.43 J	0.41 J	0.51 J	5
Arsenic, Total	4.9	6.1	7.4	4.7	11.3 / 13
Barium, Total	69.9	51.7	83.5	60.3	1500
Beryllium, Total	0.36 J	0.24 J	0.48	0.14 J	22
Cadmium, Total	0.46 J	0.28 J	0.41	0.25 J	5.2
Calcium, Total	27000	78900	17400	90100	---
Chromium, Total	12.1	10.7	17	12.1	21
Cobalt, Total	5.3	4.9	7.1	4.8	20
Copper, Total	18.5	19.5	19	19.6	2900
Iron, Total	11500	13000	16900	12500	15000 / 15900
Lead, Total	92.5	101	106	102	107
Magnesium, Total	14200	40200	11100	48300	325000
Manganese, Total	314 J	420 J	560 J	381 J	630 / 636
Mercury, Total	0.013 J	0.017 J	0.029 J	0.016 J	0.89
Nickel, Total	12.3	11.5	16	11.3	100
Potassium, Total	864	663	781	550	---
Selenium, Total	ND	ND	ND	ND	1.3
Sodium, Total	2080	1740	1900	2060	---
Thallium, Total	0.43 J	ND	0.32 J	0.16 J	2.6
Vanadium, Total	22.1	25.3	33.6	20.4	550
Zinc, Total	64.2	63.7 J	75.8 J	62.9 J	5100



**Summary Table of ISGS Site No. 2792-8**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL2-2(0.5-1.5)-022814	AL2-4(0.5-1.5)-022814	AL2-5(0.5-1.5)-022814	AL2-7(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	2/28/2014	2/28/2014	2/28/2014	
Location ID	AL2-2	AL2-4	AL2-5	AL2-7	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>TCLP Metals (mg/l)</b>					
Barium, TCLP	0.4 J	0.41 J	0.53	0.53	2
Cadmium, TCLP	0.0038 J	0.0039 J	0.0047	0.0028 J	0.005
Chromium, TCLP	ND	0.0022 J	ND	ND	0.1
Cobalt, TCLP	0.013 J	ND	0.0004 J	0.0018 J	1
Copper, TCLP	0.0081 J	0.0083 J	0.0077 J	ND	0.65
Iron, TCLP	ND	ND	ND	0.022 J	5
Lead, TCLP	0.049	0.023	0.035	0.018 J	0.0075
Manganese, TCLP	3.5 J	0.7	1.2	1.6	0.15
Nickel, TCLP	0.022 J	0.01 J	0.0078 J	0.014 J	0.1
Selenium, TCLP	ND	ND	ND	ND	0.05
Zinc, TCLP	0.15	0.096 J	0.15	0.11	5
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.019	0.041	0.041	0.023	0.05
Barium, SPLP	0.26 J	0.46 J	0.48 J	0.28 J	2
Beryllium, SPLP	0.0019 J	0.0038 J	0.0032 J	0.0019 J	0.004
Cadmium, SPLP	0.0023 J	0.0026 J	0.0025 J	0.0018 J	0.005
Chromium, SPLP	0.058	0.1	0.11	0.064	0.1
Cobalt, SPLP	0.017 J	0.028 J	0.026 J	0.016 J	1
Copper, SPLP	0.11	0.17	0.1	0.11	0.65
Iron, SPLP	53.6 J	99.5 J	94.5 J	50.7 J	5
Lead, SPLP	0.8	0.67	0.69	0.5	0.0075
Manganese, SPLP	1.1	1.5	1.7	0.88	0.15
Mercury, SPLP	ND	0.00018 J	0.00017 J	ND	0.002
Nickel, SPLP	0.054	0.095	0.093	0.053	0.1
Silver, SPLP	0.0054	0.0024 J	0.0025 J	0.0017 J	0.05
Zinc, SPLP	0.4	0.69	0.52	0.39	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

**Summary Table of ISGS Site No. 2792-8**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL2-7(0.5-1.5)-022814D	AL2-9(0.5-1.5)-030314	AL2-10(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	3/3/2014	2/28/2014	
Location ID	AL2-7	AL2-9	AL2-10	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.3	8.2	9	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Acetone	ND	29.8	ND	25000
Benzene	1.1 J	2	1.1	30
Carbon disulfide	ND	0.55 J	ND	9000
Ethylbenzene	ND	1.5 J	ND	13000
Methyl ethyl ketone	ND	3.8 J	ND	17000
Methylene chloride	5.6	2.2	1.3 J	20
Toluene	1.8 J	4.4	2.1 J	12000
Xylene (Total)	0.7 J	2.8	1.3 J	5600
<b>SVOCs (ug/kg)</b>				
Acenaphthene	ND	ND	99.8 J	570000
Anthracene	ND	ND	236 J	1.20E+07
Benzo(a)anthracene	ND	ND	643 J	900 / 1100 / 1800
Benzo(a)pyrene	229 J	ND	555 J	90 / 1300 / 2100
Benzo(b)fluoranthene	211 J	ND	745 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	559 J	ND	527 J	2300000
Benzo(k)fluoranthene	ND	ND	268 J	9000
bis(2-Ethylhexyl)phthalate	ND	ND	ND	46000
Butyl benzyl phthalate	ND	ND	ND	930000
Carbazole	ND	ND	124 J	600
Chrysene	ND	ND	656 J	88000
Fluoranthene	220 J	112 J	1400 J	3100000
Fluorene	ND	ND	87.4 J	560000
Indeno(1,2,3-cd)pyrene	ND	ND	311 J	900 / 900 / 1600
Phenanthrene	104 J	ND	1020 J	210000
Pyrene	185 J	118 J	1190 J	2300000
<b>Total Metals (mg/kg)</b>				
Antimony, Total	0.4 J	ND	0.59 J	5
Arsenic, Total	5	1.6	4	11.3 / 13
Barium, Total	55.2	19.8	31.6	1500
Beryllium, Total	0.24 J	0.097 J	0.096 J	22
Cadmium, Total	0.25 J	ND	0.077 J	5.2
Calcium, Total	76900	151000	126000	---
Chromium, Total	14.2	9.2	11.3	21
Cobalt, Total	4.5	1.9 J	2.6 J	20
Copper, Total	16.3	11.3	14.9	2900
Iron, Total	11800	5770	8700	15000 / 15900
Lead, Total	75.3	28.6 J	59.3	107
Magnesium, Total	34400	93900	70700	325000
Manganese, Total	367 J	289 J	282	630 / 636
Mercury, Total	0.019 J	ND	0.0089 J	0.89
Nickel, Total	11.1	5.7	7.9	100
Potassium, Total	606	375 J	550	---
Selenium, Total	ND	0.89	ND	1.3
Sodium, Total	2330	1410	2390	---
Thallium, Total	0.14 J	ND	ND	2.6
Vanadium, Total	23	9.2	16.3	550
Zinc, Total	53.3 J	42.5 J	43.2	5100

**Summary Table of ISGS Site No. 2792-8**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL2-7(0.5-1.5)-022814D	AL2-9(0.5-1.5)-030314	AL2-10(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	3/3/2014	2/28/2014	
Location ID	AL2-7	AL2-9	AL2-10	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>TCLP Metals (mg/l)</b>				
Barium, TCLP	0.58	0.22 J	0.74	2
Cadmium, TCLP	0.002 J	0.0025 J	0.0021 J	0.005
Chromium, TCLP	ND	ND	ND	0.1
Cobalt, TCLP	0.0011 J	0.0028 J	ND	1
Copper, TCLP	ND	ND	ND	0.65
Iron, TCLP	0.06 J	ND	0.033 J	5
Lead, TCLP	0.009 J	0.013	0.0032 J	0.0075
Manganese, TCLP	1.2	1.3	0.94 J	0.15
Nickel, TCLP	0.01 J	0.016 J	0.0081 J	0.1
Selenium, TCLP	ND	0.0091 J	0.0055 J	0.05
Zinc, TCLP	0.079 J	0.16	0.056 J	5
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.024	0.01	0.042	0.05
Barium, SPLP	0.32 J	0.1 J	0.71	2
Beryllium, SPLP	0.002 J	0.0005 J	0.0025 J	0.004
Cadmium, SPLP	0.0016 J	0.001 J	0.0024 J	0.005
Chromium, SPLP	0.067	0.022	0.078	0.1
Cobalt, SPLP	0.017 J	0.0048 J	0.024 J	1
Copper, SPLP	0.089	0.034	0.096	0.65
Iron, SPLP	54.9 J	16.6 J	73.7 J	5
Lead, SPLP	0.42	0.2	0.52	0.0075
Manganese, SPLP	0.89	0.31	2	0.15
Mercury, SPLP	ND	ND	0.00015 J	0.002
Nickel, SPLP	0.056	0.016 J	0.065	0.1
Silver, SPLP	0.0019 J	0.0015 J	ND	0.05
Zinc, SPLP	0.35	0.19	0.47	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/12/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28641

Sampling Date: 02/28/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **228**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	AL2-10(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28641-2	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.7
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63585.D	1	03/05/14	KD	n/a	n/a	MSM2228
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.08 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.7	2.7	ug/kg	
71-43-2	Benzene	1.1	0.49	0.33	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.58	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.7	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	4.9	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.9	0.73	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.9	0.55	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.40	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.44	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.41	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.41	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.41	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	0.67	ug/kg	
591-78-6	2-Hexanone	ND	9.7	0.74	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.9	0.52	ug/kg	
75-09-2	Methylene chloride	1.3	1.9	0.52	ug/kg	J
100-42-5	Styrene	ND	4.9	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.38	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	2.1	4.9	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-2	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.56	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.88	ug/kg	
1330-20-7	Xylene (total)	1.3	1.9	0.21	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
627-27-0	3-Buten-1-ol	6.08	11	ug/kg	JN
	Total TIC, Volatile		11	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
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 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> AL2-10(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-2	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37251.D	5	03/06/14	KR	03/04/14	OP37036	MSR1375
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1500	66	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2900	75	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2900	85	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2900	480	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5900	740	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	370	ug/kg	
95-48-7	2-Methylphenol	ND	2900	120	ug/kg	
106-44-5	4-Methylphenol	ND	2900	150	ug/kg	
88-75-5	2-Nitrophenol	ND	2900	79	ug/kg	
100-02-7	4-Nitrophenol	ND	5900	550	ug/kg	
87-86-5	Pentachlorophenol	ND	2900	210	ug/kg	
108-95-2	Phenol	ND	1500	84	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2900	74	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2900	73	ug/kg	
83-32-9	Acenaphthene	99.8	590	79	ug/kg	J
208-96-8	Acenaphthylene	ND	590	59	ug/kg	
120-12-7	Anthracene	236	590	71	ug/kg	J
56-55-3	Benzo(a)anthracene	643	590	76	ug/kg	
50-32-8	Benzo(a)pyrene	555	590	63	ug/kg	J
205-99-2	Benzo(b)fluoranthene	745	590	74	ug/kg	
191-24-2	Benzo(g,h,i)perylene	527	590	59	ug/kg	J
207-08-9	Benzo(k)fluoranthene	268	590	89	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	1500	74	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	60	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	80	ug/kg	
106-47-8	4-Chloroaniline	ND	2900	74	ug/kg	
86-74-8	Carbazole	124	590	69	ug/kg	J
218-01-9	Chrysene	656	590	73	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	69	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	90	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	110	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1500	90	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL2-10(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28641-2	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1500	76	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1500	84	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1500	78	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2900	200	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2900	74	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1500	150	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	590	70	ug/kg	
132-64-9	Dibenzofuran	ND	590	81	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	160	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	46	ug/kg	
84-66-2	Diethyl phthalate	ND	1500	73	ug/kg	
131-11-3	Dimethyl phthalate	ND	1500	85	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	54	ug/kg	
206-44-0	Fluoranthene	1400	590	81	ug/kg	
86-73-7	Fluorene	87.4	590	78	ug/kg	J
118-74-1	Hexachlorobenzene	ND	1500	92	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	85	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2900	740	ug/kg	
67-72-1	Hexachloroethane	ND	1500	71	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	311	590	65	ug/kg	J
78-59-1	Isophorone	ND	1500	68	ug/kg	
91-57-6	2-Methylnaphthalene	ND	590	75	ug/kg	
88-74-4	2-Nitroaniline	ND	2900	74	ug/kg	
99-09-2	3-Nitroaniline	ND	2900	160	ug/kg	
100-01-6	4-Nitroaniline	ND	2900	74	ug/kg	
91-20-3	Naphthalene	ND	590	94	ug/kg	
98-95-3	Nitrobenzene	ND	1500	80	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	84	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	89	ug/kg	
85-01-8	Phenanthrene	1020	590	80	ug/kg	
129-00-0	Pyrene	1190	590	69	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1500	81	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		30-130%
4165-62-2	Phenol-d5	64%		30-130%
118-79-6	2,4,6-Tribromophenol	71%		30-130%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL2-10(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-2 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 84.7
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	78%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.72	5300	ug/kg	JN
	Total TIC, Semi-Volatile		5300	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL2-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-2	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.59 B	0.96	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.0	0.96	0.20	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	31.6	4.8	0.070	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.096 B	0.38	0.023	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.077 B	0.38	0.041	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	126000	4800	60	mg/kg	10	03/04/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	11.3	0.96	0.091	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	2.6 B	4.8	0.045	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	14.9	2.4	0.53	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	8700	9.6	0.84	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	59.3	0.96	0.16	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	70700	480	4.9	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	282	1.4	0.038	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0089 B	0.036	0.0080	mg/kg	1	03/04/14	03/05/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	7.9	3.8	0.042	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	550	480	8.2	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.96	0.33	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.48	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	2390	480	3.2	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.13 U	0.96	0.13	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	16.3	0.96	0.13	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	43.2	1.9	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16810
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22585
- (5) Prep QC Batch: MP22588

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> AL2-10(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28641-2 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 84.7
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.7		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	9.0		su	1	03/03/14	MA	SW846 9045D

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RL = Reporting Limit

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> AL2-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-2A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.74	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0021 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.033 B			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0032 B	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.94			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/05/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0081 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0055 B	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.056 B			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16814
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22591
- (4) Prep QC Batch: MP22594

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.5  
4

## Report of Analysis

<b>Client Sample ID:</b> AL2-10(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-2B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.042		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.71		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0025 B		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0024 B		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.078		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.024 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.096		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	73.7		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.52		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.0		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00015 B		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.065		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.47		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16806
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22578
- (4) Prep QC Batch: MP22583

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-11	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63604.D	1	03/06/14	KD	n/a	n/a	MSM2229
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.87 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	89.6	11	3.2	ug/kg	
71-43-2	Benzene	1.2	0.57	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	0.90	5.7	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.86	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.78	ug/kg	
591-78-6	2-Hexanone	ND	11	0.86	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.61	ug/kg	
75-09-2	Methylene chloride	4.6	2.3	0.60	ug/kg	
100-42-5	Styrene	ND	5.7	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	1.6	5.7	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-11	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.65	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	0.52	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	32	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	15	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	5.7	ug/kg	JN
	Total TIC, Volatile		52.7	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-11	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37288.D	5	03/06/14	KR	03/04/14	OP37036	MSR1376
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	60	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	68	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	670	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	330	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	71	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	67	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	66	ug/kg	
83-32-9	Acenaphthene	ND	540	72	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	64	ug/kg	
56-55-3	Benzo(a)anthracene	132	540	69	ug/kg	J
50-32-8	Benzo(a)pyrene	117	540	58	ug/kg	J
205-99-2	Benzo(b)fluoranthene	192	540	67	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	214	540	53	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	540	81	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	68	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	73	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	67	ug/kg	
86-74-8	Carbazole	ND	540	63	ug/kg	
218-01-9	Chrysene	110	540	67	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	63	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	82	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	96	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	82	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-11	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	77	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	67	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	64	ug/kg	
132-64-9	Dibenzofuran	ND	540	74	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	67	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	77	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	49	ug/kg	
206-44-0	Fluoranthene	214	540	73	ug/kg	J
86-73-7	Fluorene	ND	540	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	84	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	77	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	670	ug/kg	
67-72-1	Hexachloroethane	ND	1300	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	98.8	540	59	ug/kg	J
78-59-1	Isophorone	ND	1300	62	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	68	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	67	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	67	ug/kg	
91-20-3	Naphthalene	ND	540	86	ug/kg	
98-95-3	Nitrobenzene	ND	1300	72	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	81	ug/kg	
85-01-8	Phenanthrene	107	540	72	ug/kg	J
129-00-0	Pyrene	183	540	63	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1300	74	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-11	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.31  
4

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	83%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5400	ug/kg	JN
	Total TIC, Semi-Volatile		5400	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-11	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.57 B	0.91	0.14	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	4.9	0.91	0.19	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	69.9	4.6	0.066	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.36 B	0.37	0.022	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.46	0.37	0.039	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	27000	460	5.7	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	12.1	0.91	0.087	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.3	4.6	0.043	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	18.5	2.3	0.51	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	11500	9.1	0.79	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	92.5	0.91	0.15	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	14200	460	4.7	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	314	1.4	0.037	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.013 B	0.035	0.0076	mg/kg	1	03/06/14	03/06/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	12.3	3.7	0.040	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	864	460	7.8	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	2080	460	3.0	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.43 B	0.91	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	22.1	0.91	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	64.2	1.8	0.15	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22586
- (4) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814		<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-11		<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL		

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.5		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.6		su	1	03/03/14	MA	SW846 9045D

---

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-11A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.40 B	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0038 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.013 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0081 B			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.049	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.5			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/05/14	SA SW846 7470A <sup>1</sup>
Nickel	0.022 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.15			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16814
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22591
- (4) Prep QC Batch: MP22594

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL2-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-11B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.019		0.010	0.0029	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.26 B		0.50	0.00081	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0019 B		0.0040	0.00025	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0023 B		0.0040	0.00050	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.058		0.010	0.0014	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.017 B		0.050	0.00040	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	53.6		0.10	0.020	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.80		0.010	0.0017	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.054		0.040	0.00057	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0054		0.0050	0.0010	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.40		0.10	0.00050	mg/l	1	03/03/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16806
- (2) Instrument QC Batch: MA16830
- (3) Prep QC Batch: MP22578
- (4) Prep QC Batch: MP22583

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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<b>FED-EX Tracking #</b> 		<b>Bottle Order Control #</b> 	
<b>Accutest Quote #</b> 		<b>Accutest Job #</b> MC28641	
<b>Client / Reporting Information</b> Company Name: <u>Western Solutions</u> Street Address: <u>750 F. Banker Ct Ste 500</u> City: <u>Newsm Hills FL</u> State: <u>FL</u> Zip: <u>60061</u> Project Contact: <u>S. Babusankumar</u> E-mail: Phone #: <u>847-918-4010</u> Fax #: <u>-4055</u> Sampler(s) Name(s): <u>T. Wallis</u> Phone #: <u>847-918-4130</u>		<b>Project Information</b> Project Name: <u>IDET-048 McHenry County</u> Street: Billing Information (if different from Report to) Company Name: Street Address: City: State: Zip: Attention: PO#:	
<b>Requested Analysis (see TEST CODE sheet)</b> DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank		<b>Matrix Codes</b> 	
<b>Accutest Sample #</b> 		<b>LAB USE ONLY</b> 	
<b>Field ID / Point of Collection</b> 		<b>MEGNDI Viol #</b> 	
<b>Collection</b> Date: Time: Sampled by: Matrix: # of bottles:		<b>Number of preserved Bottles</b> HCl HNO3 H2SO4 DI Water HNO3 H2O2 Blankfill	
-1 LN-2(0.5-1.5)-022814 -2 AL2-10(0.5-1.5)-022814 -3 AL2-11(0.5-1.5)-022814 -4 FS1-1(0.5-1.5)-022814 -5 SBU-1(0.5-1.5)-022814 -6 SBU-2(0.5-1.5)-022814 -7 AL1-9(0.5-1.5)-022814 -8 AL1-9(0.5-1.5)-022814 -9 AL1-10(0.5-1.5)-022814 -10 AL2-1(0.5-1.5)-022814 -11 AL2-2(0.5-1.5)-022814 -12 AL2-3(0.5-1.5)-022814		2-28-14 1135 TW 5 3 1150 1205 1220 1230 1240 1255 1255 1310 1345 1400 TW 5 3 2-28-14 1420 TW 5 3	
<b>Turnaround Time (Business days)</b> <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		<b>Approved By (Accutest PM) / Date:</b> 	
<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other	
<b>Sample Custody must be documented below each time samples change possession, including courier delivery.</b>		<b>Comments / Special Instructions</b> 	
Relinquished by Sampler: <u>1 T. Wallis</u> Date Time: <u>2-28-14/1455</u>		Received By: <u>2 [Signature]</u> Date Time: <u>2/29/14 253</u>	
Relinquished by Sampler: <u>3 [Signature]</u> Date Time: <u>3/1/14 10:00</u>		Received By: <u>4 [Signature]</u> Date Time:	
Relinquished by: <u>5</u> Date Time:		Received By: <u>5</u> Date Time:	
Custody Seal #		<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact	
		On Ice Cooler Temp. <u>0.5° 0.5° 1.0°</u>	

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Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28642

Sampling Dates: 02/27/14 - 02/28/14

Report to:

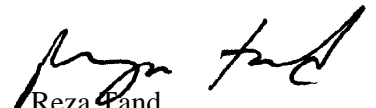
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **306**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b> AL2-4(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-8	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63619.D	1	03/06/14	KD	n/a	n/a	MSM2230

Run #1	Initial Weight	Final Volume
Run #2	5.17 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.0	ug/kg	
71-43-2	Benzene	1.4	0.53	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	1.3	5.3	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.1	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.81	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.74	ug/kg	
591-78-6	2-Hexanone	ND	11	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.3	0.58	ug/kg	
75-09-2	Methylene chloride	3.9	2.1	0.57	ug/kg	
100-42-5	Styrene	ND	5.3	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.34	ug/kg	
108-88-3	Toluene	2.1	5.3	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-4(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-8	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.97	ug/kg	
1330-20-7	Xylene (total)	0.68	2.1	0.23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	15	ug/kg	JN
627-27-0	3-Buten-1-ol	7.83	9.4	ug/kg	JN
16746-87-5	2,4-Dimethyl-1-hexene	8.15	5.5	ug/kg	JN
110-54-3	Hexane	8.46	6.5	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.5	ug/kg	JN
	Total TIC, Volatile		42.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> AL2-4(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-8	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37348.D	1	03/10/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	10.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	550	25	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1100	28	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1100	31	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1100	180	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	2200	270	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1100	140	ug/kg	
95-48-7	2-Methylphenol	ND	1100	43	ug/kg	
106-44-5	4-Methylphenol	ND	1100	56	ug/kg	
88-75-5	2-Nitrophenol	ND	1100	29	ug/kg	
100-02-7	4-Nitrophenol	ND	2200	200	ug/kg	
87-86-5	Pentachlorophenol	ND	1100	77	ug/kg	
108-95-2	Phenol	ND	550	31	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1100	27	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1100	27	ug/kg	
83-32-9	Acenaphthene	ND	220	29	ug/kg	
208-96-8	Acenaphthylene	ND	220	22	ug/kg	
120-12-7	Anthracene	ND	220	26	ug/kg	
56-55-3	Benzo(a)anthracene	86.6	220	28	ug/kg	J
50-32-8	Benzo(a)pyrene	82.9	220	23	ug/kg	J
205-99-2	Benzo(b)fluoranthene	118	220	27	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	132	220	22	ug/kg	J
207-08-9	Benzo(k)fluoranthene	47.5	220	33	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	550	28	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	550	22	ug/kg	
91-58-7	2-Chloronaphthalene	ND	550	30	ug/kg	
106-47-8	4-Chloroaniline	ND	1100	27	ug/kg	
86-74-8	Carbazole	ND	220	26	ug/kg	
218-01-9	Chrysene	70.1	220	27	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	550	26	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	550	33	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	550	39	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	550	33	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL2-4(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-8	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	550	28	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	550	31	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	550	29	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1100	73	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1100	27	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	550	55	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	220	26	ug/kg	
132-64-9	Dibenzofuran	ND	220	30	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	550	58	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	550	17	ug/kg	
84-66-2	Diethyl phthalate	ND	550	27	ug/kg	
131-11-3	Dimethyl phthalate	ND	550	32	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	32.5	550	20	ug/kg	J
206-44-0	Fluoranthene	136	220	30	ug/kg	J
86-73-7	Fluorene	ND	220	29	ug/kg	
118-74-1	Hexachlorobenzene	ND	550	34	ug/kg	
87-68-3	Hexachlorobutadiene	ND	550	32	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1100	270	ug/kg	
67-72-1	Hexachloroethane	ND	550	26	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	55.4	220	24	ug/kg	J
78-59-1	Isophorone	ND	550	25	ug/kg	
91-57-6	2-Methylnaphthalene	ND	220	28	ug/kg	
88-74-4	2-Nitroaniline	ND	1100	27	ug/kg	
99-09-2	3-Nitroaniline	ND	1100	60	ug/kg	
100-01-6	4-Nitroaniline	ND	1100	27	ug/kg	
91-20-3	Naphthalene	ND	220	35	ug/kg	
98-95-3	Nitrobenzene	ND	550	30	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	550	31	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	550	33	ug/kg	
85-01-8	Phenanthrene	70.2	220	30	ug/kg	J
129-00-0	Pyrene	124	220	26	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	550	30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	89%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-4(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 90.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	12000	ug/kg	JN
	Total TIC, Semi-Volatile		12000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL2-4(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-8	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.43 B	0.95	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.1	0.95	0.20	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	51.7	4.7	0.069	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.24 B	0.38	0.023	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.28 B	0.38	0.040	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	78900	4700	59	mg/kg	10	03/04/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	10.7	0.95	0.090	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.9	4.7	0.044	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	19.5	2.4	0.52	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	13000	9.5	0.82	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	101	0.95	0.16	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	40200	470	4.8	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	420	1.4	0.038	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.017 B	0.035	0.0076	mg/kg	1	03/06/14	03/06/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	11.5	3.8	0.042	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	663	470	8.1	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.95	0.33	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	1740	470	3.1	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.13 U	0.95	0.13	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	25.3	0.95	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	63.7	1.9	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22586
- (5) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL2-4(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-8	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.4		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.7		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL2-4(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-8A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 90.4
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.41 B	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0039 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0022 B	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0083 B			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.023	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Manganese	0.70			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.010 B			0.040	0.00057	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.096 B			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Instrument QC Batch: MA16834
- (4) Prep QC Batch: MP22606
- (5) Prep QC Batch: MP22611

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL2-4(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-8B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.041		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.46 B		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0038 B		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0026 B		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.10		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.028 B		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	99.5		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.67		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.5		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00018 B		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.095		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0024 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.69		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL2-5(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-10	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 82.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63621.D	1	03/06/14	KD	n/a	n/a	MSM2230
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.47 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	3.8	ug/kg	
71-43-2	Benzene	1.7	0.68	0.46	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.48	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.81	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.2	ug/kg	
75-15-0	Carbon disulfide	3.5	6.8	0.18	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.8	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.8	0.76	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.44	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.56	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.57	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.57	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.57	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.36	ug/kg	
100-41-4	Ethylbenzene	ND	2.7	0.93	ug/kg	
591-78-6	2-Hexanone	ND	14	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.8	0.73	ug/kg	
75-09-2	Methylene chloride	4.2	2.7	0.72	ug/kg	
100-42-5	Styrene	ND	6.8	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.53	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	2.5	6.8	0.28	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-5(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-10	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.78	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	0.99	2.7	0.30	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	17	ug/kg	JN
109-66-0	Pentane	6.49	17	ug/kg	JN
124-13-0	Octanal	8.47	8.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.6	ug/kg	JN
	Total TIC, Volatile		50.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	AL2-5(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-10	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37350.D	1	03/10/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	10.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	590	27	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1200	30	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1200	34	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1200	190	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	2400	300	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1200	150	ug/kg	
95-48-7	2-Methylphenol	ND	1200	47	ug/kg	
106-44-5	4-Methylphenol	ND	1200	60	ug/kg	
88-75-5	2-Nitrophenol	ND	1200	32	ug/kg	
100-02-7	4-Nitrophenol	ND	2400	220	ug/kg	
87-86-5	Pentachlorophenol	ND	1200	83	ug/kg	
108-95-2	Phenol	ND	590	34	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1200	30	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1200	29	ug/kg	
83-32-9	Acenaphthene	ND	240	32	ug/kg	
208-96-8	Acenaphthylene	ND	240	24	ug/kg	
120-12-7	Anthracene	ND	240	28	ug/kg	
56-55-3	Benzo(a)anthracene	61.3	240	30	ug/kg	J
50-32-8	Benzo(a)pyrene	62.5	240	25	ug/kg	J
205-99-2	Benzo(b)fluoranthene	77.9	240	30	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	100	240	24	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	240	36	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	590	30	ug/kg	
85-68-7	Butyl benzyl phthalate	55.7	590	24	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	590	32	ug/kg	
106-47-8	4-Chloroaniline	ND	1200	30	ug/kg	
86-74-8	Carbazole	ND	240	28	ug/kg	
218-01-9	Chrysene	51.8	240	29	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	590	28	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	590	36	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	590	42	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	590	36	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL2-5(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-10	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	590	31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	590	34	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	590	31	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1200	79	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1200	30	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	590	59	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	240	28	ug/kg	
132-64-9	Dibenzofuran	ND	240	33	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	590	63	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	590	18	ug/kg	
84-66-2	Diethyl phthalate	ND	590	29	ug/kg	
131-11-3	Dimethyl phthalate	ND	590	34	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	590	22	ug/kg	
206-44-0	Fluoranthene	84.5	240	32	ug/kg	J
86-73-7	Fluorene	ND	240	31	ug/kg	
118-74-1	Hexachlorobenzene	ND	590	37	ug/kg	
87-68-3	Hexachlorobutadiene	ND	590	34	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1200	300	ug/kg	
67-72-1	Hexachloroethane	ND	590	28	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	35.6	240	26	ug/kg	J
78-59-1	Isophorone	ND	590	27	ug/kg	
91-57-6	2-Methylnaphthalene	ND	240	30	ug/kg	
88-74-4	2-Nitroaniline	ND	1200	30	ug/kg	
99-09-2	3-Nitroaniline	ND	1200	65	ug/kg	
100-01-6	4-Nitroaniline	ND	1200	30	ug/kg	
91-20-3	Naphthalene	ND	240	38	ug/kg	
98-95-3	Nitrobenzene	ND	590	32	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	590	34	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	590	36	ug/kg	
85-01-8	Phenanthrene	48.4	240	32	ug/kg	J
129-00-0	Pyrene	76.0	240	28	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	590	33	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-5(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-10 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 82.7
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	90%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	12000	ug/kg	JN
	Total TIC, Semi-Volatile		12000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL2-5(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-10	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.41 B	0.96	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.4	0.96	0.20	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	83.5	4.8	0.070	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.48	0.38	0.023	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.41	0.38	0.041	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	17400	480	6.0	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	17.0	0.96	0.091	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	7.1	4.8	0.045	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	19.0	2.4	0.53	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	16900	9.6	0.83	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	106	0.96	0.16	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	11100	480	4.9	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	560	1.4	0.038	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.029 B	0.038	0.0083	mg/kg	1	03/06/14	03/06/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	16.0	3.8	0.042	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	781	480	8.2	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 U	0.96	0.33	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.48	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	1900	480	3.2	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.32 B	0.96	0.13	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	33.6	0.96	0.13	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	75.8	1.9	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22586
- (4) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL2-5(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-10	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	82.7		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.3		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit



# Report of Analysis

<b>Client Sample ID:</b> AL2-5(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-10A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.53	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0047	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 B			0.050	0.00040	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0077 B			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.035	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.2			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0078 B			0.040	0.00057	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.15			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Instrument QC Batch: MA16834
- (4) Prep QC Batch: MP22606
- (5) Prep QC Batch: MP22611

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.27  
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## Report of Analysis

<b>Client Sample ID:</b> AL2-5(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-10B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.041		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.48 B		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0032 B		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0025 B		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.11		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.026 B		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.10		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	94.5		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.69		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00017 B		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.093		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0025 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.52		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-13	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63624.D	1	03/07/14	KD	n/a	n/a	MSM2230

Run #1	Initial Weight	Final Volume
Run #2	4.98 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.2	ug/kg	
71-43-2	Benzene	2.2	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	0.72	5.8	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.87	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.80	ug/kg	
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.62	ug/kg	
75-09-2	Methylene chloride	4.4	2.3	0.61	ug/kg	
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	2.5	5.8	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-13	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.66	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	1.1	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.10	15	ug/kg	JN
109-66-0	Pentane	6.49	16	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.85	7.5	ug/kg	JN
110-54-3	Hexane	8.46	6.7	ug/kg	JN
	Total TIC, Volatile		45.2	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.35  
4

# Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-13	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37353.D	5	03/10/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	71	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	81	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	700	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	75	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	530	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	80	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	70	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	69	ug/kg	
83-32-9	Acenaphthene	ND	560	75	ug/kg	
208-96-8	Acenaphthylene	ND	560	56	ug/kg	
120-12-7	Anthracene	ND	560	68	ug/kg	
56-55-3	Benzo(a)anthracene	ND	560	73	ug/kg	
50-32-8	Benzo(a)pyrene	228	560	61	ug/kg	J
205-99-2	Benzo(b)fluoranthene	210	560	70	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	582	560	56	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	560	85	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	71	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	76	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	70	ug/kg	
86-74-8	Carbazole	ND	560	66	ug/kg	
218-01-9	Chrysene	ND	560	70	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	66	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	86	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	86	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.35  
**4**

# Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-13	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	73	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	81	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	75	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	70	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	67	ug/kg	
132-64-9	Dibenzofuran	ND	560	78	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	70	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	81	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	52	ug/kg	
206-44-0	Fluoranthene	193	560	77	ug/kg	J
86-73-7	Fluorene	ND	560	75	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	88	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	81	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	560	62	ug/kg	
78-59-1	Isophorone	ND	1400	65	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	71	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	70	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	70	ug/kg	
91-20-3	Naphthalene	ND	560	90	ug/kg	
98-95-3	Nitrobenzene	ND	1400	76	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	80	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	85	ug/kg	
85-01-8	Phenanthrene	85.1	560	76	ug/kg	J
129-00-0	Pyrene	197	560	66	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	78	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	82%		30-130%
4165-62-2	Phenol-d5	81%		30-130%
118-79-6	2,4,6-Tribromophenol	83%		30-130%
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	87%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-13	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6400	ug/kg	JN
	Total TIC, Semi-Volatile		6400	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.35  
4

# Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-13	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.51 B	0.91	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.7	0.91	0.19	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	60.3	4.6	0.066	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.14 B	0.37	0.022	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.25 B	0.37	0.039	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	90100	4600	57	mg/kg	10	03/04/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	12.1	0.91	0.087	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.8	4.6	0.043	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	19.6	2.3	0.51	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	12500	9.1	0.79	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	102	0.91	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	48300	460	4.7	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	381	1.4	0.037	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.016 B	0.035	0.0077	mg/kg	1	03/06/14	03/06/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	11.3	3.7	0.040	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	550	460	7.8	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	2060	460	3.0	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.16 B	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	20.4	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	62.9	1.8	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22586
- (5) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.35  
**4**



## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-13	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.9		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

4.35  
**4**

# Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-13A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.53	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0028 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0018 B			0.050	0.00040	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.022 B			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.018	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.6			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.11			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Prep QC Batch: MP22606
- (4) Prep QC Batch: MP22611

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.36  
4

## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-13B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.023		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.28 B		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0019 B		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0018 B		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.064		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.016 B		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	50.7		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.50		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.88		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.053		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0017 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.39		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814D	
<b>Lab Sample ID:</b> MC28642-14	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63625.D	1	03/07/14	KD	n/a	n/a	MSM2230
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.94 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.2	ug/kg	
71-43-2	Benzene	1.1	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.80	ug/kg	
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.62	ug/kg	
75-09-2	Methylene chloride	5.6	2.3	0.61	ug/kg	
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	1.8	5.8	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-14	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.66	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	0.70	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
109-66-0	Pentane	6.49	16	ug/kg	JN
	Total TIC, Volatile		16	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.38  
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## Report of Analysis

<b>Client Sample ID:</b>	AL2-7(0.5-1.5)-022814D	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-14	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37354.D	5	03/10/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	560	74	ug/kg	
208-96-8	Acenaphthylene	ND	560	56	ug/kg	
120-12-7	Anthracene	ND	560	67	ug/kg	
56-55-3	Benzo(a)anthracene	ND	560	72	ug/kg	
50-32-8	Benzo(a)pyrene	229	560	60	ug/kg	J
205-99-2	Benzo(b)fluoranthene	211	560	69	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	559	560	55	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	560	84	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	560	66	ug/kg	
218-01-9	Chrysene	ND	560	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	85	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL2-7(0.5-1.5)-022814D	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-14	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	72	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	74	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	66	ug/kg	
132-64-9	Dibenzofuran	ND	560	77	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	220	560	76	ug/kg	J
86-73-7	Fluorene	ND	560	74	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	87	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	560	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	560	89	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	84	ug/kg	
85-01-8	Phenanthrene	104	560	75	ug/kg	J
129-00-0	Pyrene	185	560	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	77	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	82%		30-130%
4165-62-2	Phenol-d5	79%		30-130%
118-79-6	2,4,6-Tribromophenol	81%		30-130%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814D <b>Lab Sample ID:</b> MC28642-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 87.5
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6200	ug/kg JN
	Total TIC, Semi-Volatile		6200	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.38  
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## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-14	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis**

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.40 B	0.91	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.0	0.91	0.19	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	55.2	4.5	0.066	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.24 B	0.36	0.022	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.25 B	0.36	0.038	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	76900	4500	57	mg/kg	10	03/04/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	14.2	0.91	0.086	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5	4.5	0.043	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	16.3	2.3	0.50	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	11800	9.1	0.79	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	75.3	0.91	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	34400	450	4.6	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	367	1.4	0.036	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.019 B	0.035	0.0076	mg/kg	1	03/06/14	03/06/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	11.1	3.6	0.040	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	606	450	7.8	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.91	0.31	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	2330	450	3.0	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.14 B	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	23.0	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	53.3	1.8	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16822
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22586
- (5) Prep QC Batch: MP22602

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.38  
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## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-14	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.38  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.5		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.3		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-14A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.58	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0020 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0011 B			0.050	0.00040	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.060 B			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0090 B	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.2			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.010 B			0.040	0.00057	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.079 B			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Prep QC Batch: MP22606
- (4) Prep QC Batch: MP22611

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL2-7(0.5-1.5)-022814D	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-14B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.024		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.32 B		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0020 B		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0016 B		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.067		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.017 B		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.089		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	54.9		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.42		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.89		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.056		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0019 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.35		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.40  
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Accutest Laboratories of New England  
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www.accutest.com

FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
Accutest Quote # \_\_\_\_\_ Accutest Job # **MC28642**

Client / Reporting Information			Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes											
Company Name <b>Weston Solutions</b>			Project Name <b>IDOT-048</b>										<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCU/SP/PA Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PH</div> </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank											
Street Address <b>750 E. Buncker Ct. Ste 500</b>			Billing Information (If different from Report to)																															
City <b>Norfolk Hills IL 60061</b>			Company Name																															
Project Contact <b>S. Babuski, Manager</b>			Street Address																															
Phone # <b>847-918-4018</b> Fax # <b>-4055</b>			City State Zip																															
Sampler(s) Name(s) <b>T. Walls</b> Phone # <b>847-918-4130</b>			Attention: POC#																															
Accutest Sample #			Collection																					Number of preserved Bottles										LAB USE ONLY
Field ID / Point of Collection			MEQ/MI Val #																					Date										Time
Sampled by			Matrix																					# of bottles										Matrix
-1 VL1-3(0.5-1.5)-022714			2-27-14																					1350										TW
-2 VL1-4(0.5-1.5)-022714													1405																					
-3 VL1-4(0.5-1.5)-022714D													1405																					
-4 VL1-5(0.5-1.5)-022714													1425																					
-5 VL1-6(0.5-1.5)-022714													1440																					
-6 VL1-7(0.5-1.5)-022714			2-27-14										1455																					
-7 CL-1(0.5-1.5)-022814			2-28-14										0745																					
-8 AL2-4(0.5-1.5)-022814													0800																					
-9 FS2-1(0.5-1.5)-022814													0820																					
-10 AL2-5(0.5-1.5)-022814													0835																					
-11 RV-1(0.5-1.5)-022814													0855																					
-12 AL2-6(0.5-1.5)-022814			2-28-14										0905										TW	S	3									
Turnaround Time (Business days)			Approved By (Accutest PM) / Date:										Data Deliverable Information										Comments / Special Instructions											
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush TIA data available VIA Lablink			<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary										<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other																					
Relinquished by Sampler:			Date Time:										Relinquished By:										Date Time:	Received By:										
1 <i>Z. Matyja</i>			2-28-14 / 1455										<i>Z. Matyja</i>											2 <b>FX</b>										
Relinquished by Sampler:			Date Time:										Relinquished By:										Date Time:	Received By:										
3 <b>FX</b>			3/1/14 10:00										<i>[Signature]</i>											4										
Relinquished by:			Date Time:										Relinquished By:										Date Time:	Received By:										
5																								5										
Custody Seal #			Intact										Preserved where applicable										On Ice	Cooler Temp.										
			<input type="checkbox"/>										<input type="checkbox"/>										<input checked="" type="checkbox"/>	0.5° 0.5°, 1.0°										

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**MC28642: Chain of Custody**

**Page 1 of 4**

Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Batch Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes	
Company Name <b>Weston Solutions</b>		Project Name <b>IDT-048</b>										<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCAP/SLP Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PH</div> </div>										DW - Drinking Water GW - Ground Water LW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address <b>750 F. Bunker Ct. Ste 500</b>		Street: <b>Newton Hills FL 32661</b>																					
City, State, Zip <b>Newton Hills FL 32661</b>		Billing Information (if different from Report to)																					
Project Contact <b>S. Babinsku www</b>		Company Name																					
Phone #, Fax # <b>817-918-4018 -4055</b>		Street Address																					
Sampler(s) Name(s) <b>T. Wells 817-918-4130</b>		City, State, Zip																					
		Attention: PC#																					
Accutest Sample #	Field ID / Point of Collection	MECHDI / Vol #	Collection			Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY					
			Date	Time	Sampled by			HCl	MACH	INCS	INCSA	INCSB	DI Water	MACH	ENCORE	Residue							
13	AL2-7(0.5-1.5)-022814		2-28-14	0920	TW	S	3											X	X	X	X	X	
14	AL2-7(0.5-1.5)-022814D			0920																			
15	FS3-1(0.5-1.5)-022814			0935																			
16	TN-1(0.5-1.5)-022814			0950																			
17	VL4-1(0.5-1.5)-022814			1010																			
18	VL4-2(0.5-1.5)-022814			1020																			
19	RI-1(0.5-1.5)-022814			1035																			
20	LN-1(0.5-1.5)-022814		2-28-14	1050																			
Turnaround Time (Business days)										Data Deliverable Information										Comments / Special Instructions			
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TJA data available VIA Lablink</small>										<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>													
Relinquished by Sampler: <b>17 Matthew A. Wells</b>												Date Time: <b>2-28-14 1455</b>		Received By: <b>[Signature]</b>		Relinquished By: <b>2</b>		Date Time: <b>2</b>		Received By: <b>FPO</b>		<b>CHICAGO SC</b>	
Relinquished by Sampler: <b>3 [Signature]</b>												Date Time: <b>3/1/14 1020</b>		Received By: <b>[Signature]</b>		Relinquished By: <b>4</b>		Date Time: <b>4</b>		Received By: <b>[Signature]</b>			
Relinquished by: <b>5</b>												Date Time:		Received By:		Custody Seal #		<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/>		On Ice <input type="checkbox"/>		Cooler Temp. <input type="checkbox"/>	

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Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28683

Sampling Date: 03/03/14

Report to:

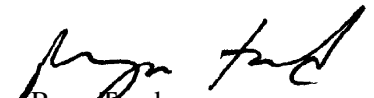
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **343**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-10	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 91.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28462.D	1	03/07/14	AMY	n/a	n/a	MSV1066
Run #2 <sup>a</sup>	V28513.D	1	03/11/14	AMY	n/a	n/a	MSV1068

Run #	Initial Weight	Final Volume
Run #1	6.57 g	5.0 ml
Run #2	4.48 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	29.8	8.3	2.3	ug/kg	
71-43-2	Benzene	2.0	0.42	0.28	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	0.17	ug/kg	
75-25-2	Bromoform	ND	1.7	0.29	ug/kg	
74-83-9	Bromomethane	ND	1.7	0.50	ug/kg	
78-93-3	2-Butanone (MEK)	3.8	8.3	2.6	ug/kg	J
75-15-0	Carbon disulfide	0.55	4.2	0.11	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.7	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	0.13	ug/kg	
75-00-3	Chloroethane	ND	4.2	0.63	ug/kg	
67-66-3	Chloroform	ND	1.7	0.14	ug/kg	
74-87-3	Chloromethane	ND	4.2	0.47	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	0.27	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	0.22	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	0.27	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	0.34	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	0.38	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	0.35	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.7	0.35	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	0.35	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	0.22	ug/kg	
100-41-4	Ethylbenzene	1.5	1.7	0.57	ug/kg	J
591-78-6	2-Hexanone	ND	8.3	0.63	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	0.15	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.2	0.45	ug/kg	
75-09-2	Methylene chloride	2.2	1.7	0.44	ug/kg	
100-42-5	Styrene	ND	4.2	0.14	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	0.33	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	0.26	ug/kg	
108-88-3	Toluene	4.4	4.2	0.17	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.7	0.18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.7	0.48	ug/kg	
79-01-6	Trichloroethene	ND	1.7	0.20	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	0.76	ug/kg	
1330-20-7	Xylene (total)	2.8	1.7	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	94%	70-130%
2037-26-5	Toluene-D8	77%	76%	70-130%
460-00-4	4-Bromofluorobenzene	129%	123%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	24	ug/kg	JN
109-66-0	Pentane	2.42	14	ug/kg	JN
110-00-9	Furan	2.65	.79	ug/kg	JN
110-54-3	Hexane	4.25	6.1	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.32	4.2	ug/kg	JN
123-75-1	Pyrrolidine	6.81	1.4	ug/kg	JN
3404-61-3	1-Hexene, 3-methyl-	7.36	1.6	ug/kg	JN
142-82-5	Heptane	7.55	2.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.32	5.8	ug/kg	JN
565-80-0	3-Pentanone, 2,4-dimethyl-	10.31	1.4	ug/kg	JN
66-25-1	Hexanal	10.47	2.5	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.96	2.8	ug/kg	JN
	Total TIC, Volatile		67.29	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	AL2-9(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-10	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18084.D	5	03/11/14	KR	03/05/14	OP37062	MSW792
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	78	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	77	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	540	73	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	540	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	540	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	540	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	540	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	540	64	ug/kg	
218-01-9	Chrysene	ND	540	68	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	83	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	98	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	83	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-10	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	72	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	65	ug/kg	
132-64-9	Dibenzofuran	ND	540	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	68	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	112	540	74	ug/kg	J
86-73-7	Fluorene	ND	540	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	79	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	60	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	540	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	78	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	540	74	ug/kg	
129-00-0	Pyrene	118	540	64	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.28  
4

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	1.6	0.88	0.18	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	19.8	4.4	0.064	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.097 B	0.35	0.021	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	151000	4400	55	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.2	0.88	0.084	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	1.9 B	4.4	0.041	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	11.3	2.2	0.49	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	5770	8.8	0.77	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	28.6	0.88	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	93900	4400	45	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	289	1.3	0.035	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0076 U	0.035	0.0076	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	5.7	3.5	0.039	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	375 B	440	7.5	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.89	0.88	0.31	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1410	440	2.9	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.88	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	9.2	0.88	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	42.5	1.8	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

(1) Instrument QC Batch: MA16831

(2) Instrument QC Batch: MA16841

(3) Instrument QC Batch: MA16842

(4) Prep QC Batch: MP22607

(5) Prep QC Batch: MP22634

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.6		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.2		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.28  
**4**

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-10A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.6
--	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.22 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0025 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0028 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.013	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0091 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.16			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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4

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-10B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.6
--	--

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.010		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.10 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00050 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.022		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0048 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.034		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	16.6		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.20		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.31		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.016 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0015 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.19		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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4





# CHAIN OF CUSTODY

Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL. 508-481-6200 FAX: 508-481-7753  
www.acctest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC 28683</b>

Client / Reporting Information		Project Information								Requested Analysis (see TEST CODE sheet)										Matrix Codes				
Company Name Western Solutions		Project Name IDOT-048 McHenry County								<i>Vertical text in analysis columns:</i> VCS, SNOCs, Total metals, TCLP/SPLP metals, PH										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank				
Street Address 750 E. Banker Ct Ste 500		Street:		Billing Information (If different from Report to)																				
City State Zip Newark Hills IL 60651		City:		Company Name																				
Project Contact S. Babusankumar		Project #		Street Address																				
Phone # Fax # 847-918-4018 4055		Client PO#		City State Zip																				
Sampler(s) Name(s) T. Wells		Phone # 817-918-4130		Project Manager Matt Maxwell		Attention: PO#																		
Accutest Sample #	Field ID / Point of Collection	MEQHD/ Val #	Collection					Number of preserved Bottles										LAB USE ONLY						
			Date	Time	Samples by	Matrix	# of bottles	MC	MCP	MSD	MSD	MSD	MSD	NONE	D/ Water	MEQ	ENCORE		Shrinkline					
-1	LL-1(0.5-1.5)-030314		3-3-14	0805	TW	SO	3																	
-2	LL-1(0.5-1.5)-080314D			0805																				
-3	RSI-1(0.5-1.5)-030314			0825																				
-4	RSI-2(0.5-1.5)-030314			0840																				
-5	RE3-1(0.5-1.5)-030314			0900																				
-6	RES2-1(0.5-1.5)-030314			0915																				
-7	TF-1(0.5-1.5)-030314			0925																				
-8	TF-2(0.5-1.5)-030314			1105																				
-9	TF-3(0.5-1.5)-030314			1120																				
-10	AL2-9(0.5-1.5)-030314			1135																				
-11	AL2-8(0.5-1.5)-030314			1145																				
-12	CN-1(0.5-1.5)-030314		3-3-14	1200			TW	SO	3															
								Data Deliverable Information										Comments / Special Instructions						
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>				Approved By (Accutest PM): / Date: _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>				142												
Sample Custody must be documented below each time samples change possession, including courier delivery.												<b>CHICAGO BC</b>												
Relinquished by Sampler: <i>1 Z. G. N. M</i>	Date Time: 3-4-14 / 15:40	Received By: <i>T. Wells</i>	Date Time: 3/4/14 15:40	Relinquished By: <i>F. J. P. A.</i>	Date Time: 3/5/14 9:30	Received By: <i>Will Chad</i>																		
Relinquished by Sampler: <i>3</i>	Date Time:	Received By: <i>3</i>	Date Time:	Relinquished By: <i>4</i>	Date Time:	Received By: <i>4</i>																		
Relinquished by: <i>5</i>	Date Time:	Received By:	Date Time:	Custody Seal #	<input type="checkbox"/> Intact      Preserved where applicable	<input type="checkbox"/> Not Intact	<input type="checkbox"/>	On Ice	Cooler Temp.															
								27		10.9°C														

5.1 5



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FED-EX Tracking #  
 Accutest Quote #  
 Bottle Order Control #  
 Accutest Job # **MC 28683**

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)											Matrix Codes				
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>													D/W - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank				
Street Address <b>750 E. Bunker Ct Ste 500</b>		Billing Information (If different from Report to)																	
City State Zip <b>Wenon Hills IL 60091</b>		Company Name																	
Project Contact <b>S. Babusukumar</b>		Street Address																	
Phone # E-mail <b>847-918-4018 -4055</b>		City State Zip																	
Sampler(s) Name(s) <b>T. Wills</b>		Project Manager <b>Matt Maxwell</b>													VCS SUCS Total Metals TCLP/SLURP Metals PH				
Field ID / Point of Collection		MECH/DI Vial #		Collection		Sampled by		Matrix		# of bottles		Number of preserved Bottles							
				Date Time															
-13 CN-2(0.5-1.5)-030314				3-3-14 1210		TW SO		3		3		X X X X X							
-14 CN-3(0.5-1.5)-030314				1225		↓ ↓		↓ ↓		↓ ↓		↓ ↓ ↓ ↓ ↓							
-15 CN-3(0.5-1.5)-030314				1225		↓ ↓		↓ ↓		↓ ↓		↓ ↓ ↓ ↓ ↓							
-16 AL3-1(0.5-1.5)-030314				1240		↓ ↓		↓ ↓		↓ ↓		↓ ↓ ↓ ↓ ↓							
-17 AL3-3(0.5-1.5)-030314				1300		↓ ↓		↓ ↓		↓ ↓		↓ ↓ ↓ ↓ ↓							
-18 AL3-5(0.5-1.5)-030314				1315		↓ ↓		↓ ↓		↓ ↓		↓ ↓ ↓ ↓ ↓							
-19 AL3-7(0.5-1.5)-030314				1325		↓ ↓		↓ ↓		↓ ↓		↓ ↓ ↓ ↓ ↓							
-20 AL3-8(0.5-1.5)-030314				3-3-14 1350		TW SO		3		3		X X X X X							

Turnaround Time (Business days)		Approved By (Accutest PM) / Date:		Data Deliverable Information						Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TIA data available VIA Lablink</small>		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <small>Commercial "A" = Results Only            Commercial "B" = Results + QC Summary</small>		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other							

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 <b>T. Wills</b>	Date Time: <b>3-4-14/15:40</b>	Received By: <b>[Signature]</b>	Date Time: <b>3/4/14 15:40</b>	Relinquished By: <b>[Signature]</b>	Date Time: <b>3/5/14 9:30</b>	Received By: <b>[Signature]</b>
Relinquished by Sampler: 3	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:
Relinquished by: 5	Date Time:	Received By:	Date Time:	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact	<input type="checkbox"/> On ice <input type="checkbox"/> Cooler Temp.

5.1  
5



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## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

17302 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.342448139 Longitude: -88.533883242  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.342448139 Longitude: -88.533883242Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS LN-1 AND LN-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-9. SEE FIGURE 3-3 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28641 AND MC28642

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

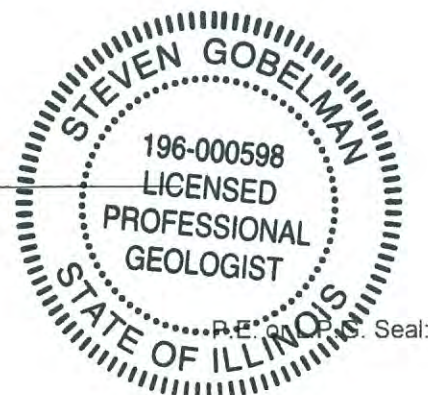
I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

Seal:

**Summary Table of ISGS Site No. 2792-9**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	LN-1(0.5-1.5)-022814	LN-2(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	2/28/2014	
Location ID	LN-1	LN-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.2	8.6	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	0.95	1.6	30
Carbon disulfide	2.3 J	ND	9000
Methylene chloride	5.3	5.8	20
Toluene	1.5 J	2.2 J	12000
Xylene (Total)	0.63 J	1.6 J	5600
<b>SVOCs (ug/kg)</b>			
Benzo(a)anthracene	ND	54.8 J	900 / 1100 / 1800
Benzo(a)pyrene	57.4 J	52.5 J	90 / 1300 / 2100
Benzo(b)fluoranthene	76.9 J	83.4 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	56 J	50.1 J	2300000
Benzo(k)fluoranthene	ND	28.1 J	9000
bis(2-Ethylhexyl)phthalate	560 J	13.4 J	46000
Chrysene	ND	65.2 J	88000
Fluoranthene	98.5 J	97.9 J	3100000
Indeno(1,2,3-cd)pyrene	ND	36.6 J	900 / 900 / 1600
Phenanthrene	45 J	63.9 J	210000
Pyrene	83.9 J	93.1 J	2300000
<b>Total Metals (mg/kg)</b>			
Antimony, Total	0.26 J	0.38 J	5
Arsenic, Total	7	6.5	11.3 / 13
Barium, Total	101	122	1500
Beryllium, Total	0.45	0.38	22
Cadmium, Total	0.22 J	0.31 J	5.2
Calcium, Total	41000	17100	---
Chromium, Total	13.7	13.7	21
Cobalt, Total	7.9	6.6	20
Copper, Total	12.6	15.1	2900
Iron, Total	13700	14400	15000 / 15900
Lead, Total	64.7	41.6	107
Magnesium, Total	25400	11100	325000
Manganese, Total	570	626	630 / 636
Mercury, Total	0.03 J	0.039	0.89
Nickel, Total	12.2	13.7	100
Potassium, Total	891	1050	---
Selenium, Total	0.61 J	ND	1.3
Silver, Total	0.53	ND	4.4
Sodium, Total	2490	2170	---
Thallium, Total	0.37 J	0.4 J	2.6
Vanadium, Total	24.7	24.7	550
Zinc, Total	62.2	64.3	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	ND	0.0074 J	0.05
Barium, TCLP	0.65	0.69	2
Cadmium, TCLP	0.0023 J	0.0039 J	0.005
Cobalt, TCLP	ND	0.027 J	1
Iron, TCLP	ND	0.038 J	5
Lead, TCLP	0.0067 J	0.041	0.0075
Manganese, TCLP	0.96	9.5 J	0.15
Nickel, TCLP	0.011 J	0.021 J	0.1
Zinc, TCLP	0.16	0.18	5

**Summary Table of ISGS Site No. 2792-9**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	LN-1(0.5-1.5)-022814	LN-2(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	2/28/2014	
Location ID	LN-1	LN-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.043	0.072	0.05
Barium, SPLP	0.74	1.1	2
Beryllium, SPLP	0.0047	0.005	0.004
Cadmium, SPLP	0.0026 J	0.004	0.005
Chromium, SPLP	0.13	0.14	0.1
Cobalt, SPLP	0.034 J	0.045 J	1
Copper, SPLP	0.12	0.16	0.65
Iron, SPLP	108 J	140 J	5
Lead, SPLP	0.53	0.65	0.0075
Manganese, SPLP	1.6	3.3	0.15
Mercury, SPLP	0.00028	0.00024	0.002
Nickel, SPLP	0.1	0.12	0.1
Selenium, SPLP	ND	0.0069 J	0.05
Silver, SPLP	0.0032 J	ND	0.05
Zinc, SPLP	0.72	0.84	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/12/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28641

Sampling Date: 02/28/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **228**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-1	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63584.D	1	03/05/14	KD	n/a	n/a	MSM2228
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.91 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	1.6	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.89	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.50	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	2.4	0.82	ug/kg	
591-78-6	2-Hexanone	ND	12	0.90	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.64	ug/kg	
75-09-2	Methylene chloride	5.8	2.4	0.63	ug/kg	
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	2.2	5.9	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.68	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	1.6	2.4	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.48	21	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.83	14	ug/kg	JN
110-54-3	Hexane	8.46	10	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8.3	ug/kg	JN
5458-16-2	Pentane, 2-cyclopropyl-	9.92	9.4	ug/kg	JN
10574-37-5	2-Pentene, 2,3-dimethyl-	11.18	11	ug/kg	JN
	Total TIC, Volatile		73.7	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
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## Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-1	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37252.D	1	03/06/14	KR	03/04/14	OP37036	MSR1375
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	54.8	110	15	ug/kg	J
50-32-8	Benzo(a)pyrene	52.5	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	83.4	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	50.1	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	28.1	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	65.2	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28641-1	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	13.4	280	10	ug/kg	J
206-44-0	Fluoranthene	97.9	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	36.6	110	12	ug/kg	J
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	63.9	110	15	ug/kg	J
129-00-0	Pyrene	93.1	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

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 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.73	5900	ug/kg	JN
297-03-0	Cyclotetracosane	12.32	1300	ug/kg	JN
	Total TIC, Semi-Volatile		7200	ug/kg	J

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 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

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# Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.38 B	0.91	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.5	0.91	0.19	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	122	4.5	0.066	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.38	0.36	0.022	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.31 B	0.36	0.038	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	17100	450	5.7	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	13.7	0.91	0.086	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.6	4.5	0.043	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	15.1	2.3	0.50	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	14400	9.1	0.79	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	41.6	0.91	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	11100	450	4.6	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	626	1.4	0.036	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.039	0.034	0.0075	mg/kg	1	03/04/14	03/05/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	13.7	3.6	0.040	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	1050	450	7.8	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.91	0.31	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	2170	450	3.0	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.40 B	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	24.7	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	64.3	1.8	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16810
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22585
- (4) Prep QC Batch: MP22588

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.1  
 4

## Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.1		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.6		su	1	03/03/14	MA	SW846 9045D

---

RL = Reporting Limit

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-1A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0074 B	D004	5.0	0.010	0.0029	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Barium	0.69	D005	100	0.50	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0039 B	D006	1.0	0.0040	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.027 B			0.050	0.00040	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Iron	0.038 B			0.10	0.020	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Lead	0.041	D008	5.0	0.010	0.0017	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Manganese	9.5			0.015	0.00081	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/05/14	03/05/14	SA SW846 7470A <sup>1</sup>
Nickel	0.021 B			0.040	0.00057	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.18			0.10	0.00050	mg/l	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16814
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22591
- (4) Prep QC Batch: MP22594

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.2  
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## Report of Analysis

<b>Client Sample ID:</b> LN-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28641-1B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.072		0.010	0.0029	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0050		0.0040	0.00025	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0040		0.0040	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.045 B		0.050	0.00040	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.16		0.025	0.0070	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Iron	140		0.10	0.020	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.65		0.010	0.0017	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.3		0.015	0.00081	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00024		0.00020	0.00010	mg/l	1	03/03/14	03/04/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0069 B		0.025	0.0048	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.84		0.10	0.00050	mg/l	1	03/03/14	03/04/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16806
- (2) Instrument QC Batch: MA16820
- (3) Prep QC Batch: MP22578
- (4) Prep QC Batch: MP22583

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

4.3  
4



Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)												Matrix Codes	
Company Name Western Solutions		Project Name IDET-048 McHenry County														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address 750 F. Banker Ct Ste 500		Street:															
City Newnan Hills FL		City:															
State FL		State:															
Zip 32061		Zip:															
Billing Information (if different from Report to)		Company Name															
Project Contact S. Babusankumar		Street Address															
E-mail		City															
Phone # 847-918-4010		State															
Fax # -4055		Zip															
Sampler(s) Name(s) T. Wallis		Attention:															
Phone # 847-918-4130		PO#															
Accutest Sample #	Field ID / Point of Collection	MEGNDI Viol #	Collection			Number of preserved Bottles											LAB USE ONLY
			Date	Time	Sampled by	Matrix	# of bottles	HCl	NH4OH	HNDS	H2SO4	DW Water	MEQOH	ENCORE	Blankette		
-1	LN-2(0.5-1.5)-022814		2-28-14	1135	TW	S	3				3						
-2	AL2-10(0.5-1.5)-022814			1150													
-3	AL2-11(0.5-1.5)-022814			1205													
-4	FS1-1(0.5-1.5)-022814			1220													
-5	SBU-1(0.5-1.5)-022814			1230													
-6	SBU-2(0.5-1.5)-022814			1240													
-7	AL1-9(0.5-1.5)-022814			1255													
-8	AL1-9(0.5-1.5)-022814			1255													
-9	AL1-10(0.5-1.5)-022814			1310													
-10	AL2-1(0.5-1.5)-022814			1345												14B	
-11	AL2-2(0.5-1.5)-022814			1400													
-12	AL2-3(0.5-1.5)-022814		2-28-14	1420	TW	S	3				3						
Data Deliverable Information												Comments / Special Instructions					
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM) / Date:		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other									
Sample Custody must be documented below each time samples change possession, including courier delivery.												CHICAGO					
Relinquished by Sampler: 1 <i>T. Wallis</i>		Date Time: 2-28-14/1455		Received By: <i>T. Wallis</i>		Date Time: 2/28/14 253		Relinquished By: 2		Date Time: 2		Received By: <i>FX</i>					
Relinquished by Sampler: 3 <i>FX</i>		Date Time: 3/1/14 10:00		Received By: <i>FX</i>		Date Time: 3		Relinquished By: 4		Date Time: 4		Received By: 4					
Relinquished by: 5		Date Time:		Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact		On Ice Cooler Temp. 0.5°, 0.5°, 10°					

5.1  
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Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28642

Sampling Dates: 02/27/14 - 02/28/14

Report to:

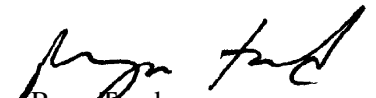
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **306**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-20	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 80.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63641.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	4.29 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	4.0	ug/kg	
71-43-2	Benzene	0.95	0.72	0.49	ug/kg	
75-27-4	Bromodichloromethane	ND	2.9	0.30	ug/kg	
75-25-2	Bromoform	ND	2.9	0.51	ug/kg	
74-83-9	Bromomethane	ND	2.9	0.87	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.4	ug/kg	
75-15-0	Carbon disulfide	2.3	7.2	0.19	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.9	0.32	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	0.23	ug/kg	
75-00-3	Chloroethane	ND	7.2	1.1	ug/kg	
67-66-3	Chloroform	ND	2.9	0.24	ug/kg	
74-87-3	Chloromethane	ND	7.2	0.82	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	0.47	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.9	0.39	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.9	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.9	0.60	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.9	0.65	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.9	0.60	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.9	0.60	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	0.61	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	0.33	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	0.38	ug/kg	
100-41-4	Ethylbenzene	ND	2.9	1.0	ug/kg	
591-78-6	2-Hexanone	ND	14	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.9	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.2	0.78	ug/kg	
75-09-2	Methylene chloride	5.3	2.9	0.77	ug/kg	
100-42-5	Styrene	ND	7.2	0.25	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	0.57	ug/kg	
127-18-4	Tetrachloroethene	ND	2.9	0.45	ug/kg	
108-88-3	Toluene	1.5	7.2	0.30	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.9	0.31	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-20	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.9	0.83	ug/kg	
79-01-6	Trichloroethene	ND	2.9	0.35	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	1.3	ug/kg	
1330-20-7	Xylene (total)	0.63	2.9	0.32	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.07	17	ug/kg	JN
	Total TIC, Volatile		17	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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4

## Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-20	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 80.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37360.D	1	03/11/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	10.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	600	27	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1200	31	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1200	35	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1200	200	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	2400	300	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1200	150	ug/kg	
95-48-7	2-Methylphenol	ND	1200	48	ug/kg	
106-44-5	4-Methylphenol	ND	1200	62	ug/kg	
88-75-5	2-Nitrophenol	ND	1200	32	ug/kg	
100-02-7	4-Nitrophenol	ND	2400	230	ug/kg	
87-86-5	Pentachlorophenol	ND	1200	85	ug/kg	
108-95-2	Phenol	ND	600	34	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1200	30	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1200	30	ug/kg	
83-32-9	Acenaphthene	ND	240	32	ug/kg	
208-96-8	Acenaphthylene	ND	240	24	ug/kg	
120-12-7	Anthracene	ND	240	29	ug/kg	
56-55-3	Benzo(a)anthracene	ND	240	31	ug/kg	
50-32-8	Benzo(a)pyrene	57.4	240	26	ug/kg	J
205-99-2	Benzo(b)fluoranthene	76.9	240	30	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	56.0	240	24	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	240	36	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	600	30	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	600	25	ug/kg	
91-58-7	2-Chloronaphthalene	ND	600	33	ug/kg	
106-47-8	4-Chloroaniline	ND	1200	30	ug/kg	
86-74-8	Carbazole	ND	240	28	ug/kg	
218-01-9	Chrysene	ND	240	30	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	600	28	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	600	37	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	600	43	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	600	37	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-20	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 80.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	600	31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	600	35	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	600	32	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1200	81	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1200	30	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	600	60	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	240	29	ug/kg	
132-64-9	Dibenzofuran	ND	240	33	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	600	64	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	600	19	ug/kg	
84-66-2	Diethyl phthalate	ND	600	30	ug/kg	
131-11-3	Dimethyl phthalate	ND	600	35	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	560	600	22	ug/kg	J
206-44-0	Fluoranthene	98.5	240	33	ug/kg	J
86-73-7	Fluorene	ND	240	32	ug/kg	
118-74-1	Hexachlorobenzene	ND	600	38	ug/kg	
87-68-3	Hexachlorobutadiene	ND	600	35	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1200	300	ug/kg	
67-72-1	Hexachloroethane	ND	600	29	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	240	27	ug/kg	
78-59-1	Isophorone	ND	600	28	ug/kg	
91-57-6	2-Methylnaphthalene	ND	240	31	ug/kg	
88-74-4	2-Nitroaniline	ND	1200	30	ug/kg	
99-09-2	3-Nitroaniline	ND	1200	66	ug/kg	
100-01-6	4-Nitroaniline	ND	1200	30	ug/kg	
91-20-3	Naphthalene	ND	240	39	ug/kg	
98-95-3	Nitrobenzene	ND	600	33	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	600	34	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	600	36	ug/kg	
85-01-8	Phenanthrene	45.0	240	33	ug/kg	J
129-00-0	Pyrene	83.9	240	28	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	600	33	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-20 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 80.7
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	12000	ug/kg	JN
	Total TIC, Semi-Volatile		12000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.56  
4

# Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-20	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.26 B	0.98	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	7.0	0.98	0.20	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	101	4.9	0.071	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.45	0.39	0.023	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.22 B	0.39	0.041	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	41000	490	6.1	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	13.7	0.98	0.093	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	7.9	4.9	0.046	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	12.6	2.4	0.54	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	13700	9.8	0.85	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	64.7	0.98	0.16	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	25400	490	5.0	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	570	1.5	0.039	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.030 B	0.037	0.0081	mg/kg	1	03/06/14	03/07/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>3</sup>
Nickel	12.2	3.9	0.043	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	891	490	8.4	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.61 B	0.98	0.34	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.53	0.49	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	2490	490	3.2	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.37 B	0.98	0.13	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	24.7	0.98	0.13	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	62.2	2.0	0.16	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16823
- (2) Instrument QC Batch: MA16839
- (3) Prep QC Batch: MP22603
- (4) Prep QC Batch: MP22609

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-20	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.56  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	80.7		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.2		su	1	03/03/14	MA	SW846 9045D

---

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-20A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.65	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0023 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0067 B	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.96			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.011 B			0.040	0.00057	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.16			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Prep QC Batch: MP22606
- (4) Prep QC Batch: MP22611

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> LN-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-20B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.043		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.74		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0047		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0026 B		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.034 B		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.12		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	108		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.53		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.6		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00028		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.10		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0032 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.72		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.58  
4

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information				Project Information				Requested Analysis ( see TEST CODE sheet)														Matrix Codes																				
Company Name <b>Weston Solutions</b>				Project Name <b>IDOT-048</b>				<div style="display: flex; justify-content: space-between;"> <span>NOCS</span> <span>SNOCS</span> <span>Total Metals</span> <span>TCU/SPLP metals</span> <span>PH</span> </div>														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OJ - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank																				
Street Address <b>750 E. Bunham Ct. Ste 500</b>				Billing Information ( If different from Report to)																																						
City State Zip <b>Normal Hills IL 60061</b>				Company Name																																						
Project Contact Email <b>S. Babuski-Human</b>				Street Address																																						
Phone # Fax # <b>847-918-4018 -4055</b>				City State Zip																																						
Sampler(s) Name(s) Phone # <b>T. Walls 847-918-4130</b>				Attention: PO#																																						
Accutest Sample #	Field ID / Point of Collection	MEQH/DI Viol #	Collection			Matrix	# of bottles																Number of preserved Bottles											LAB USE ONLY								
			Date	Time	Sampled by																		PH	NO3	NO2	NO	DH	WATER	ENCORE	Beilstein												
-1	VL1-3(0.5-1.5)-022714		2-27-14	1350	TW	S	3																																			
-2	VL1-4(0.5-1.5)-022714			1405																																						
-3	VL1-4(0.5-1.5)-022714D			1405																																						
-4	VL1-5(0.5-1.5)-022714			1425																																						
-5	VL1-6(0.5-1.5)-022714			1440																																						
-6	VL1-7(0.5-1.5)-022714		2-27-14	1455																																						
-7	GL-1(0.5-1.5)-022814		2-28-14	0745																																						
-8	AL2-4(0.5-1.5)-022814			0800																																						
-9	FS2-1(0.5-1.5)-022814			0820																																						
-10	AL2-5(0.5-1.5)-022814			0835																																						
-11	RN-1(0.5-1.5)-022814			0855																																						
-12	AL2-6(0.5-1.5)-022814		2-28-14	0905	TW	S	3																																			
Data Deliverable Information										Comments / Special Instructions																																
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TIA data available VIA Lablink</small>										Approved By (Accutest PM) / Date: _____										<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>																						
Relinquished by Sampler: <b>1 Timothy A. Walls</b> Date Time: <b>2-28-14 / 1455</b> Received By: <b>3 [Signature]</b> Date Time: <b>3/1/14 10:00</b>										Relinquished by: <b>2 [Signature]</b> Date Time: <b>2/28/14 2:53</b>										<b>CHICAGO SC</b> Received By: <b>2 FX</b>																						
Relinquished by: <b>3 FX</b> Date Time: <b>3/1/14 10:00</b> Received By: <b>4 [Signature]</b>										Relinquished by: <b>4 [Signature]</b> Date Time: _____										Received By: <b>4</b>																						
Relinquished by: <b>5</b> Date Time: _____ Received By: <b>5</b>										Custody Seal # _____ <input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not intact										On Ice    Cooler Temp. <input checked="" type="checkbox"/> 0.5° 0.5°, 1.0°																						

Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes	
Company Name <b>Weston Solutions</b>		Project Name <b>IDIT-048</b>										<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           VDCs SACs Total Metals TCLP/SPLP Metals PH         </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           DW - Drinking Water GW - Ground Water LW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank         </div> </div>										Matrix Codes  LAB USE ONLY	
Street Address <b>750 F. Bunker Ct. Ste 500</b>		Street: <b>Newton Hills FL 32061</b>																					
City <b>Newton Hills FL 32061</b>		Billing Information (if different from Report to)																					
Project Contact <b>S. Babinsku www</b>		Company Name																					
Phone # <b>817-918-4018</b>		Street Address																					
Fax # <b>-4055</b>		City <b>Newton Hills FL 32061</b>																					
Sampler(s) Name(s) <b>T. Wells</b>		Client POC#										City <b>Newton Hills FL 32061</b>										State <b>FL</b>	Zip <b>32061</b>
Phone # <b>817-918-4130</b>		Project Manager										Attention:										PC#	
Accutest Sample #	Field ID / Point of Collection	MECHDI / Vol #	Collection			Matrix	# of bottles	Number of preserved Bottles															
			Date	Time	Sampled by			HCl	MACH	MANCS	MSBDA	NONE	D/Water	MACH	ENCORE	Residue							
-13	AL2-7(0.5-1.5)-022814		2-28-14	0920	TW	S	3											X	X	X	X	X	
-14	AL2-7(0.5-1.5)-022814D			0920																			
-15	F33-1(0.5-1.5)-022814			0935																			
-16	TN-1(0.5-1.5)-022814			0950																			
-17	VL4-1(0.5-1.5)-022814			1010																			
-18	VL4-2(0.5-1.5)-022814			1020																			
-19	RI-1(0.5-1.5)-022814			1035																			
-20	LN-1(0.5-1.5)-022814		2-28-14	1050																			
<del> </del>		<del> </del>		<del> </del>		<del> </del>		<del> </del>		<del> </del>		<del> </del>		<del> </del>		<del> </del>		<del> </del>		<del> </del>		<del> </del>	
Data Deliverable Information										Comments / Special Instructions													
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TJA data available VIA Lablink</small>					Approved By (Accutest PM): / Date: _____					<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>					_____ _____ _____ _____								
Sample Custody must be documented below each time samples change possession, including courier delivery.										<b>CHICAGO SC</b>													
Relinquished by Sampler: <b>17 Matthew A. Wells</b>	Date Time: <b>2-28-14/1455</b>	Received By: <b>1 [Signature]</b>	Date Time: <b>2/28/14 2:58</b>	Relinquished By: <b>2</b>	Date Time: <b></b>	Received By: <b>2 [Signature]</b>	Date Time: <b></b>	Relinquished by Sampler: <b>3 [Signature]</b>	Date Time: <b>3/1/14 10:00</b>	Received By: <b>3 [Signature]</b>	Date Time: <b></b>	Relinquished By: <b>4</b>	Date Time: <b></b>	Received By: <b>4 [Signature]</b>	Date Time: <b></b>								
Relinquished by: <b>5</b>	Date Time: <b></b>	Received By: <b>5</b>	Date Time: <b></b>	Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	<input type="checkbox"/>	On Ice	<input type="checkbox"/>	Cooler Temp.	<input type="checkbox"/>												

5.1 5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
17202 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD dddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.341784956 Longitude: -88.532386906  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.341784956 Longitude: -88.532386906

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION RI-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-12. SEE FIGURE 3-3 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28642

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

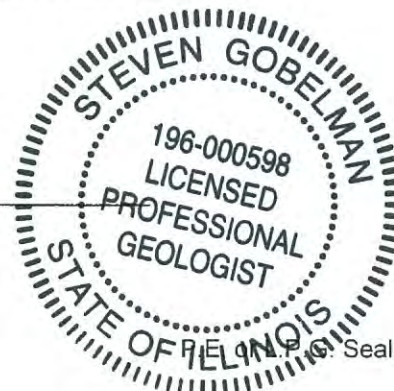
Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
Date:



**Summary Table of ISGS Site No. 2792-12**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RI-1(0.5-1.5)-022814	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	2/28/2014	
Location ID	RI-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.6	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.3	30
Carbon disulfide	1.6 J	9000
Methylene chloride	3.5	20
Toluene	2.1 J	12000
Xylene (Total)	0.99 J	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	18.1 J	46000
Fluoranthene	19.8 J	3100000
Phenanthrene	18.8 J	210000
Pyrene	19.5 J	2300000
<b>Total Metals (mg/kg)</b>		
Antimony, Total	0.22 J	5
Arsenic, Total	6.6	11.3 / 13
Barium, Total	72.9	1500
Beryllium, Total	0.33 J	22
Cadmium, Total	0.064 J	5.2
Calcium, Total	32500	---
Chromium, Total	11	21
Cobalt, Total	6	20
Copper, Total	10.3	2900
Iron, Total	12100	15000 / 15900
Lead, Total	13.9	107
Magnesium, Total	19900	325000
Manganese, Total	453 J	630 / 636
Mercury, Total	0.02 J	0.89
Nickel, Total	11	100
Potassium, Total	773	---
Sodium, Total	2230	---
Thallium, Total	0.18 J	2.6
Vanadium, Total	25.6	550
Zinc, Total	39.1 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.52	2
Cadmium, TCLP	0.0007 J	0.005
Cobalt, TCLP	0.0022 J	1
Manganese, TCLP	1.7	0.15
Nickel, TCLP	0.0093 J	0.1
Zinc, TCLP	0.026 J	5



**Summary Table of ISGS Site No. 2792-12**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RI-1(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	
Location ID	RI-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.044	0.05
Barium, SPLP	0.53	2
Beryllium, SPLP	0.0048	0.004
Cadmium, SPLP	0.0014 J	0.005
Chromium, SPLP	0.13	0.1
Cobalt, SPLP	0.033 J	1
Copper, SPLP	0.098	0.65
Iron, SPLP	109 J	5
Lead, SPLP	0.11	0.0075
Manganese, SPLP	1.3	0.15
Mercury, SPLP	0.00022	0.002
Nickel, SPLP	0.11	0.1
Silver, SPLP	0.0024 J	0.05
Zinc, SPLP	0.43	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28642

Sampling Dates: 02/27/14 - 02/28/14

Report to:

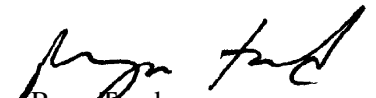
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **306**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-19	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63640.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	4.32 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.7	ug/kg	
71-43-2	Benzene	1.3	0.66	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.47	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.80	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.1	ug/kg	
75-15-0	Carbon disulfide	1.6	6.6	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.29	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.6	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.6	0.75	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.35	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.55	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.60	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.55	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.55	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.56	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.30	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.35	ug/kg	
100-41-4	Ethylbenzene	ND	2.7	0.91	ug/kg	
591-78-6	2-Hexanone	ND	13	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.6	0.72	ug/kg	
75-09-2	Methylene chloride	3.5	2.7	0.70	ug/kg	
100-42-5	Styrene	ND	6.6	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.52	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	2.1	6.6	0.27	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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 4

## Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-19	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.76	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.32	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	0.99	2.7	0.29	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
109-66-0	Pentane	6.48	13	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.83	8.4	ug/kg	JN
	Unknown	8.46	8.8	ug/kg	JN
55638-53-4	2-Heptene, 1-chloro-, (Z)-	9.17	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.3	ug/kg	JN
	Total TIC, Volatile		46.1	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RI-1(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-19	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37359.D	1	03/11/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RI-1(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-19	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	18.1	280	10	ug/kg	J
206-44-0	Fluoranthene	19.8	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	18.8	110	15	ug/kg	J
129-00-0	Pyrene	19.5	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	81%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-19 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 87.3
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6800	ug/kg	JN
	Total TIC, Semi-Volatile		6800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.53  
4

# Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-19	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.22 B	0.92	0.14	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.6	0.92	0.19	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	72.9	4.6	0.067	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.33 B	0.37	0.022	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.064 B	0.37	0.039	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	32500	460	5.8	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	11.0	0.92	0.087	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.0	4.6	0.043	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	10.3	2.3	0.51	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	12100	9.2	0.80	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	13.9	0.92	0.15	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	19900	460	4.7	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	453	1.4	0.037	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.020 B	0.035	0.0078	mg/kg	1	03/06/14	03/07/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	11.0	3.7	0.040	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	773	460	7.8	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	2230	460	3.0	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.18 B	0.92	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	25.6	0.92	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	39.1	1.8	0.15	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16823
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22586
- (4) Prep QC Batch: MP22603

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-19	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.3		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.6		su	1	03/03/14	MA	SW846 9045D

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RL = Reporting Limit

4.53  
4

# Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-19A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.52	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00070 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0022 B			0.050	0.00040	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.7			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0093 B			0.040	0.00057	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.026 B			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Prep QC Batch: MP22606
- (4) Prep QC Batch: MP22611

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

4.54  
4

## Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814		<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-19B		<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL		

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.044		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.53		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0048		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.033 B		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.098		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	109		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.3		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00022		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0024 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.43		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.55  
4

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information		Project Information						Requested Analysis (see TEST CODE sheet)										Matrix Codes																																																																																																																																																																																																																										
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048</b>						<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>40Cs</p> <p>50Cs</p> <p>Total Metals</p> <p>TCP/SP/Lead Metals</p> <p>pH</p> </div> <div style="width: 65%;"> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <tr> <th colspan="10">Requested Analysis (see TEST CODE sheet)</th> <th colspan="1">Matrix Codes</th> </tr> <tr> <td>DW - Drinking Water</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>DW - Drinking Water</td> </tr> <tr> <td>GW - Ground Water</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>GW - Ground Water</td> </tr> <tr> <td>WW - Water</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>WW - Water</td> </tr> <tr> <td>SW - Surface Water</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>SW - Surface Water</td> </tr> <tr> <td>SO - Soil</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>SO - Soil</td> </tr> <tr> <td>SL - Sludge</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>SL - Sludge</td> </tr> <tr> <td>SED - Sediment</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>SED - Sediment</td> </tr> <tr> <td>OJ - Oil</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>OJ - Oil</td> </tr> <tr> <td>LIQ - Other Liquid</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>LIQ - Other Liquid</td> </tr> <tr> <td>AIR - Air</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>AIR - Air</td> </tr> <tr> <td>SOL - Other Solid</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>SOL - Other Solid</td> </tr> <tr> <td>WP - Wipe</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>WP - Wipe</td> </tr> <tr> <td>FB - Field Blank</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>FB - Field Blank</td> </tr> <tr> <td>EB - Equipment Blank</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>EB - Equipment Blank</td> </tr> <tr> <td>RB - Rinse Blank</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>RB - Rinse Blank</td> </tr> <tr> <td>TB - Trip Blank</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>TB - Trip Blank</td> </tr> </table> </div> </div>										Requested Analysis (see TEST CODE sheet)										Matrix Codes	DW - Drinking Water												DW - Drinking Water	GW - Ground Water												GW - Ground Water	WW - Water												WW - Water	SW - Surface Water												SW - Surface Water	SO - Soil												SO - Soil	SL - Sludge												SL - Sludge	SED - Sediment												SED - Sediment	OJ - Oil												OJ - Oil	LIQ - Other Liquid												LIQ - Other Liquid	AIR - Air												AIR - Air	SOL - Other Solid												SOL - Other Solid	WP - Wipe												WP - Wipe	FB - Field Blank												FB - Field Blank	EB - Equipment Blank												EB - Equipment Blank	RB - Rinse Blank												RB - Rinse Blank	TB - Trip Blank												TB - Trip Blank
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Street Address <b>750 E. Bunler Ct. Ste 500</b>		Billing Information (If different from Report to)																																																																																																																																																																																																																																										
City State Zip <b>Narbonne Hills IL 60061</b>		Company Name																																																																																																																																																																																																																																										
Project Contact Email <b>S. Babusni, Kumar</b>		Street Address																																																																																																																																																																																																																																										
Phone # Fax # <b>847-918-4018 -4055</b>		City State Zip																																																																																																																																																																																																																																										
Sampler(s) Name(s) Phone # <b>T. Walls 847-918-4130</b>		Attention: POC#																																																																																																																																																																																																																																										

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection		Sampled by	Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY								
			Date	Time				PHI	NIOSH	INOC	MSDCA	NOVE	DI Water	MEDH	ENCORE	Biofilm										
-1	VL1-3(0.5-1.5)-022714		2-27-14	1350	TW	S	3													X	X	X	X	X		
-2	VL1-4(0.5-1.5)-022714			1405																						
-3	VL1-4(0.5-1.5)-022714D			1405																						
-4	VL1-5(0.5-1.5)-022714			1425																						
-5	VL1-6(0.5-1.5)-022714			1440																						
-6	VL1-7(0.5-1.5)-022714		2-27-14	1455																						
-7	GL-1(0.5-1.5)-022814		2-28-14	0745																						
-8	AL2-4(0.5-1.5)-022814			0800																						
-9	FS2-1(0.5-1.5)-022814			0820																						14B
-10	AL2-5(0.5-1.5)-022814			0835																						
-11	RN-1(0.5-1.5)-022814			0855																						
-12	AL2-6(0.5-1.5)-022814		2-28-14	0905	TW	S	3														X	X	X	X	X	

Turnaround Time ( Business days)		Approved By (Accutest PM) / Date:		Data Deliverable Information		Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days	_____	_____	_____	<input type="checkbox"/> Commercial "A" (Level 1)	<input type="checkbox"/> NYASP Category A		
<input type="checkbox"/> Std. 5 Business Days (By Contract only)	_____	_____	_____	<input type="checkbox"/> Commercial "B" (Level 2)	<input type="checkbox"/> NYASP Category B		
<input type="checkbox"/> 5 Day RUSH	_____	_____	_____	<input type="checkbox"/> FULLT1 (Level 3+4)	<input type="checkbox"/> State Forms		
<input type="checkbox"/> 3 Day EMERGENCY	_____	_____	_____	<input type="checkbox"/> CT RCP	<input type="checkbox"/> EDD Format		
<input type="checkbox"/> 2 Day EMERGENCY	_____	_____	_____	<input type="checkbox"/> MA MCP	<input type="checkbox"/> Other _____		
<input type="checkbox"/> 1 Day EMERGENCY	_____	_____	_____	Commercial "A" = Results Only Commercial "B" = Results + QC Summary			
Emergency & Rush TIA data available VIA Lablink							

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:		Date Time:	Received By:		Date Time:	Received By:	
1 <i>Z. M... (Signature)</i>		2-28-14 / 1455	3 <i>(Signature)</i>		2/28/14 2:53	2 <b>FX</b>	
3 <b>FX</b>		3/1/14 10:00	3 <i>(Signature)</i>			4	
Relinquished by:		Date Time:	Received By:		Date Time:	Received By:	
5			5			4	

Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	<input type="checkbox"/>	On Ice	<input checked="" type="checkbox"/>	Cooler Temp.	<b>0.5° 0.5°, 1.0°</b>
	<input type="checkbox"/> Not intact						

5.1  
5

Accutest Laboratories of New England  
495 Technology Center West, Building One  
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www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes	
Company Name <b>Weston Solutions</b>		Project Name <b>IDIT-048</b>										<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           VDCs SADCs Total Metals TCLP/SPLP Metals PH         </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           DW - Drinking Water GW - Ground Water LW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LID - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank         </div> </div>										Matrix Codes  LAB USE ONLY	
Street Address <b>750 F. Bunker Ct. Ste 500</b>		Street: <b>Newton Hills FL 32661</b>																					
City <b>Newton Hills FL 32661</b>		Billing Information (if different from Report to)																					
Project Contact <b>S. Babinsku www</b>		Company Name																					
Phone # <b>817-918-4018</b>		Street Address																					
Fax # <b>-4055</b>		City <b>Newton Hills FL 32661</b>																					
Sampler(s) Name(s) <b>T. Wells</b>		Client PO#										City <b>Newton Hills FL 32661</b>										State <b>FL</b>	Zip <b>32661</b>
Phone # <b>817-918-4130</b>		Project Manager										Attention:										PC#	
Accutest Sample #	Field ID / Point of Collection	MECHDI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles															
			Date	Time	Sampled by			HCl	MACH	MANCS	MSBDA	NONE	D/Water	MACH	ENCORE	Residue							
13	AL2-7(0.5-1.5)-022814		2-28-14	0920	TW	S	3											X	X	X	X	X	
14	AL2-7(0.5-1.5)-022814D			0920																			
15	F53-1(0.5-1.5)-022814			0935																			
16	TN-1(0.5-1.5)-022814			0950																			
17	VL4-1(0.5-1.5)-022814			1010																			
18	VL4-2(0.5-1.5)-022814			1020																			
19	RI-1(0.5-1.5)-022814			1035																			
20	LN-1(0.5-1.5)-022814		2-28-14	1050															X	X	X	X	X
Turnaround Time (Business days)		Approved By (Accutest PM): / Date:										<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary										Comments / Special Instructions  <b>CHICAGO SC</b>	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush TJA data available VIA Lablink																							
Sample Custody must be documented below each time samples change possession, including courier delivery.																							
Relinquished by Sampler: <b>17 Matthew A. Wells</b>		Date Time: <b>2-28-14/1455</b>		Received By: <b>1 [Signature]</b>		Date Time: <b>2/28/14 255</b>		Relinquished By:		Date Time:		Received By: <b>2 [Signature]</b>		Date Time:		Received By:							
Relinquished by Sampler: <b>3 [Signature]</b>		Date Time: <b>3/1/14 10200</b>		Received By: <b>3 [Signature]</b>		Date Time:		Relinquished By:		Date Time:		Received By: <b>4 [Signature]</b>		Date Time:		Received By:							
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/>		On Ice <input type="checkbox"/>		Cooler Temp. <input type="checkbox"/>									

5.1 5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

17112 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.341784956 Longitude: -88.532386906

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.341784956 Longitude: -88.532386906

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION RI-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-13. SEE FIGURE 3-3 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28642

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

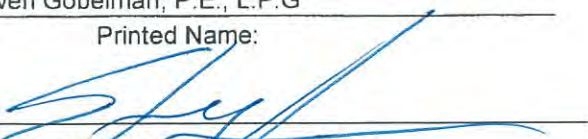
Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-13**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RI-1(0.5-1.5)-022814	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	2/28/2014	
Location ID	RI-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.6	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.3	30
Carbon disulfide	1.6 J	9000
Methylene chloride	3.5	20
Toluene	2.1 J	12000
Xylene (Total)	0.99 J	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	18.1 J	46000
Fluoranthene	19.8 J	3100000
Phenanthrene	18.8 J	210000
Pyrene	19.5 J	2300000
<b>Total Metals (mg/kg)</b>		
Antimony, Total	0.22 J	5
Arsenic, Total	6.6	11.3 / 13
Barium, Total	72.9	1500
Beryllium, Total	0.33 J	22
Cadmium, Total	0.064 J	5.2
Calcium, Total	32500	---
Chromium, Total	11	21
Cobalt, Total	6	20
Copper, Total	10.3	2900
Iron, Total	12100	15000 / 15900
Lead, Total	13.9	107
Magnesium, Total	19900	325000
Manganese, Total	453 J	630 / 636
Mercury, Total	0.02 J	0.89
Nickel, Total	11	100
Potassium, Total	773	---
Sodium, Total	2230	---
Thallium, Total	0.18 J	2.6
Vanadium, Total	25.6	550
Zinc, Total	39.1 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.52	2
Cadmium, TCLP	0.0007 J	0.005
Cobalt, TCLP	0.0022 J	1
Manganese, TCLP	1.7	0.15
Nickel, TCLP	0.0093 J	0.1
Zinc, TCLP	0.026 J	5



**Summary Table of ISGS Site No. 2792-13**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RI-1(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	
Location ID	RI-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.044	0.05
Barium, SPLP	0.53	2
Beryllium, SPLP	0.0048	0.004
Cadmium, SPLP	0.0014 J	0.005
Chromium, SPLP	0.13	0.1
Cobalt, SPLP	0.033 J	1
Copper, SPLP	0.098	0.65
Iron, SPLP	109 J	5
Lead, SPLP	0.11	0.0075
Manganese, SPLP	1.3	0.15
Mercury, SPLP	0.00022	0.002
Nickel, SPLP	0.11	0.1
Silver, SPLP	0.0024 J	0.05
Zinc, SPLP	0.43	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28642

Sampling Dates: 02/27/14 - 02/28/14

Report to:

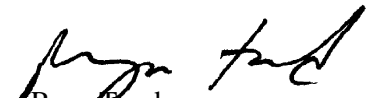
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **306**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-19	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63640.D	1	03/07/14	KD	n/a	n/a	MSM2231
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.32 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.7	ug/kg	
71-43-2	Benzene	1.3	0.66	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.47	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.80	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.1	ug/kg	
75-15-0	Carbon disulfide	1.6	6.6	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.29	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.6	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.6	0.75	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.35	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.55	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.60	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.55	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.55	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.56	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.30	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.35	ug/kg	
100-41-4	Ethylbenzene	ND	2.7	0.91	ug/kg	
591-78-6	2-Hexanone	ND	13	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.6	0.72	ug/kg	
75-09-2	Methylene chloride	3.5	2.7	0.70	ug/kg	
100-42-5	Styrene	ND	6.6	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.52	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	2.1	6.6	0.27	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.53  
 4

## Report of Analysis

<b>Client Sample ID:</b>	RI-1(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-19	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.76	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.32	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	0.99	2.7	0.29	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
109-66-0	Pentane	6.48	13	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.83	8.4	ug/kg	JN
	Unknown	8.46	8.8	ug/kg	JN
55638-53-4	2-Heptene, 1-chloro-, (Z)-	9.17	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.3	ug/kg	JN
	Total TIC, Volatile		46.1	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RI-1(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-19	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37359.D	1	03/11/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RI-1(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-19	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	18.1	280	10	ug/kg	J
206-44-0	Fluoranthene	19.8	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	18.8	110	15	ug/kg	J
129-00-0	Pyrene	19.5	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	81%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-19 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 87.3
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6800	ug/kg JN
	Total TIC, Semi-Volatile		6800	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.53  
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# Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-19	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.22 B	0.92	0.14	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.6	0.92	0.19	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	72.9	4.6	0.067	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.33 B	0.37	0.022	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.064 B	0.37	0.039	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	32500	460	5.8	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	11.0	0.92	0.087	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.0	4.6	0.043	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	10.3	2.3	0.51	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	12100	9.2	0.80	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	13.9	0.92	0.15	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	19900	460	4.7	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	453	1.4	0.037	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.020 B	0.035	0.0078	mg/kg	1	03/06/14	03/07/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	11.0	3.7	0.040	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	773	460	7.8	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	2230	460	3.0	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.18 B	0.92	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	25.6	0.92	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	39.1	1.8	0.15	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16823
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22586
- (4) Prep QC Batch: MP22603

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-19	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.3		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.6		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

4.53  
**4**

## Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-19A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.52	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00070 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0022 B			0.050	0.00040	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.7			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0093 B			0.040	0.00057	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.026 B			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Prep QC Batch: MP22606
- (4) Prep QC Batch: MP22611

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)                      B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> RI-1(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-19B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 87.3
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.044		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.53		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0048		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.033 B		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.098		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	109		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.3		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00022		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0024 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.43		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information		Project Information			Requested Analysis (see TEST CODE sheet)										Matrix Codes
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048</b>			<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SNOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCU/SP/PP Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PH</div> </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OJ - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <b>750 E. Bunham Ct. Ste 500</b>		Street:													
City <b>Norfolk Hills IL 60061</b>		Billing Information (If different from Report to)													
Project Contact <b>S. Babusi, Manager</b>		Company Name													
Phone # <b>847-918-4018</b> Fax # <b>-4055</b>		Street Address													
Sampler(s) Name(s) <b>T. Walls</b> Phone # <b>847-918-4130</b>		City State Zip													

Accutest Sample #	Field ID / Point of Collection	MEQH/DI Viol #	Collection		Sampled by	Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY					
			Date	Time				HCl	NH <sub>4</sub> OH	INOC3	H2SO4	NO <sub>2</sub>	DI Water	MEDH	ENOCHE	Bottle							
-1	VL1-3(0.5-1.5)-022714		2-27-14	1350	TW	S	3											X	X	X	X	X	
-2	VL1-4(0.5-1.5)-022714			1405																			
-3	VL1-4(0.5-1.5)-022714D			1405																			
-4	VL1-5(0.5-1.5)-022714			1425																			
-5	VL1-6(0.5-1.5)-022714			1440																			
-6	VL1-7(0.5-1.5)-022714		2-27-14	1455																			
-7	GL-1(0.5-1.5)-022814		2-28-14	0745																			
-8	AL2-4(0.5-1.5)-022814			0800																			
-9	FS2-1(0.5-1.5)-022814			0820																			14B
-10	AL2-5(0.5-1.5)-022814			0835																			
-11	RN-1(0.5-1.5)-022814			0855																			
-12	AL2-6(0.5-1.5)-022814		2-28-14	0905	TW	S	3											X	X	X	X	X	

Turnaround Time ( Business days)		Approved By (Accutest PM) / Date:		Data Deliverable Information		Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days				<input type="checkbox"/> Commercial "A" (Level 1)	<input type="checkbox"/> NYASP Category A		
<input type="checkbox"/> Std. 5 Business Days (By Contract only)				<input type="checkbox"/> Commercial "B" (Level 2)	<input type="checkbox"/> NYASP Category B		
<input type="checkbox"/> 5 Day RUSH				<input type="checkbox"/> FULLT1 (Level 3+4)	<input type="checkbox"/> State Forms		
<input type="checkbox"/> 3 Day EMERGENCY				<input type="checkbox"/> CT RCP	<input type="checkbox"/> EDD Format		
<input type="checkbox"/> 2 Day EMERGENCY				<input type="checkbox"/> MA MCP	<input type="checkbox"/> Other _____		
<input type="checkbox"/> 1 Day EMERGENCY				Commercial "A" = Results Only Commercial "B" = Results + QC Summary			

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 <i>Z. Matyja</i>	Date Time: 2-28-14 / 1455	Received By: 3 <i>[Signature]</i>	Date Time: 2/28/14 2:53	Relinquished By:	Date Time:	Received By: 2 <b>FX</b>
Relinquished by Sampler: 3 <b>FX</b>	Date Time: 3/1/14 10:00	Received By: 3 <i>[Signature]</i>	Date Time:	Relinquished By:	Date Time:	Received By:
Relinquished by:	Date Time:	Received By:	Date Time:	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/>
				On Ice		Cooler Temp. <b>0.5° 0.5°, 1.0°</b>

**MC28642: Chain of Custody**

**Page 1 of 4**

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes									
Company Name <b>Weston Solutions</b>		Project Name <b>IDT-048</b>										<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCAP/SLP Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PH</div> </div>										DW - Drinking Water GW - Ground Water LW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
Street Address <b>750 F. Bunker Ct. Ste 500</b>		Street: <b>Newton Hills FL 32661</b>																													
City <b>Newton Hills FL</b>		Billing Information (if different from Report to)																													
State <b>FL</b>		Company Name																													
Zip <b>32661</b>		Street Address																													
City <b>Newton Hills FL</b>		City State Zip																													
Project Contact <b>S. Babinsku www</b>		Project #										City State Zip										Matrix Codes									
E-mail <b>S. Babinsku www</b>		Street Address										City State Zip										Matrix Codes									
Phone # <b>877-918-4018</b>		Fax # <b>-4055</b>										Client PO#										Matrix Codes									
Phone # <b>877-918-4018</b>		Client PO#										City State Zip										Matrix Codes									
Sampler(s) Name(s) <b>T. Wells</b>		Phone # <b>877-918-4130</b>										Project Manager										Matrix Codes									
Phone # <b>877-918-4130</b>		Project Manager										Attention: PO#										Matrix Codes									
Accutest Sample #	Field ID / Point of Collection	MECHDI / Vol #	Collection			Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY													
			Date	Time	Sampled by			HCl	MCH	PHOS	PHOS4	NONE	D/Water	MCH	ENCORE	Residue															
13	AL2-7(0.5-1.5)-022814		2-28-14	0920	TW	S	3										X	X	X	X	X										
14	AL2-7(0.5-1.5)-022814D			0920																											
15	F33-1(0.5-1.5)-022814			0935																											
16	TN-1(0.5-1.5)-022814			0950																											
17	VL4-1(0.5-1.5)-022814			1010																											
18	VL4-2(0.5-1.5)-022814			1020																											
19	RI-1(0.5-1.5)-022814			1035																											
20	LN-1(0.5-1.5)-022814		2-28-14	1050	rw	S	3										X	X	X	X	X										
Data Deliverable Information																															
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush TJA data available VIA Lablink										Approved By (Accutest PM): / Date: _____										<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary						Comments / Special Instructions					
Sample Custody must be documented below each time samples change possession, including courier delivery.																															
Relinquished by Sampler: <b>17 Matthew A. Wells</b>		Date Time: <b>2-28-14/1455</b>		Received By: <b>1 [Signature]</b>		Date Time: <b>2/28/14 2:55</b>		Relinquished By: <b>2</b>		Date Time: <b></b>		Received By: <b>FPO</b>																			
Relinquished by Sampler: <b>3 [Signature]</b>		Date Time: <b>3/1/14 10:00</b>		Received By: <b>3 [Signature]</b>		Date Time: <b></b>		Relinquished By: <b>4</b>		Date Time: <b></b>		Received By: <b></b>																			
Relinquished by: <b>5</b>		Date Time: <b></b>		Received By: <b>5</b>		Date Time: <b></b>		Custody Seal #		<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/>		On Ice <input type="checkbox"/>		Cooler Temp. <input type="checkbox"/>																	

5.1 5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

16000 block of US 14 (near Dimmel Road)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.341015187 Longitude: -88.529059437  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.341015187 Longitude: -88.529059437

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS VL4-1 AND VL4-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-15. SEE FIGURE 3-4 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28642

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

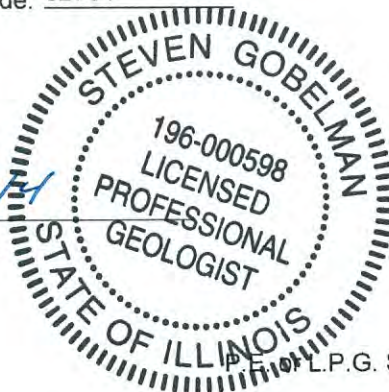
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-15**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL4-1(0.5-1.5)-022814	VL4-2(0.5-1.5)-022814	Soil Reference Concentrations <sup>A</sup>
Sample Date	2/28/2014	2/28/2014	
Location ID	VL4-1	VL4-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	9	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Acetone	ND	69.4	25000
Benzene	1.8	1.2	30
Carbon disulfide	ND	2.6 J	9000
Methylene chloride	4.4	4.3	20
Toluene	2.6 J	2.5 J	12000
Xylene (Total)	1.3 J	0.85 J	5600
<b>SVOCs (ug/kg)</b>			
Acenaphthylene	ND	201 J	85000
Benzo(a)anthracene	26.2 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	27.8 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	39.3 J	ND	900 / 1500 / 2100
bis(2-Ethylhexyl)phthalate	28.7 J	ND	46000
Butyl benzyl phthalate	17.6 J	ND	930000
Chrysene	22.4 J	ND	88000
Fluoranthene	34.4 J	34.3 J	3100000
Pyrene	29.5 J	28 J	2300000
<b>Total Metals (mg/kg)</b>			
Antimony, Total	0.48 J	0.23 J	5
Arsenic, Total	4	7.5	11.3 / 13
Barium, Total	29.2	93.2	1500
Beryllium, Total	0.1 J	0.49	22
Cadmium, Total	0.055 J	0.21 J	5.2
Calcium, Total	127000	13200	---
Chromium, Total	7.7	17.1	21
Cobalt, Total	2.6 J	8.2	20
Copper, Total	12.8	16.4	2900
Iron, Total	8390	17200	15000 / 15900
Lead, Total	96.9	40.3	107
Magnesium, Total	65100	9690	325000
Manganese, Total	315 J	613 J	630 / 636
Mercury, Total	0.0086 J	0.037	0.89
Nickel, Total	7.2	17.8	100
Potassium, Total	445 J	901	---
Sodium, Total	1250	2540	---
Thallium, Total	ND	0.29 J	2.6
Vanadium, Total	14.3	32	550
Zinc, Total	38.2 J	58.8 J	5100
<b>TCLP Metals (mg/l)</b>			
Barium, TCLP	0.31 J	0.71	2
Cadmium, TCLP	0.0012 J	0.0017 J	0.005
Cobalt, TCLP	0.0053 J	ND	1
Lead, TCLP	0.013	ND	0.0075
Manganese, TCLP	1.4	0.82	0.15
Nickel, TCLP	0.018 J	0.007 J	0.1
Zinc, TCLP	0.057 J	0.046 J	5



**Summary Table of ISGS Site No. 2792-15**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL4-1(0.5-1.5)-022814	VL4-2(0.5-1.5)-022814	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	2/28/2014	2/28/2014	
Location ID	VL4-1	VL4-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.0093 J	0.085	0.05
Barium, SPLP	0.1 J	1.1	2
Beryllium, SPLP	0.0007 J	0.0081	0.004
Cadmium, SPLP	ND	0.0023 J	0.005
Chromium, SPLP	0.025	0.22	0.1
Cobalt, SPLP	0.0049 J	0.054	1
Copper, SPLP	0.028	0.22	0.65
Iron, SPLP	19.1 J	215 J	5
Lead, SPLP	0.15	0.28	0.0075
Manganese, SPLP	0.35	2.8	0.15
Mercury, SPLP	ND	0.0007	0.002
Nickel, SPLP	0.019 J	0.22	0.1
Silver, SPLP	0.0012 J	0.0041 J	0.05
Zinc, SPLP	0.13	0.72	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28642

Sampling Dates: 02/27/14 - 02/28/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **306**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> VL4-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-17	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63628.D	1	03/07/14	KD	n/a	n/a	MSM2230

Run #1	Initial Weight	Final Volume
Run #2	4.60 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	1.8	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.89	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.50	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	2.4	0.82	ug/kg	
591-78-6	2-Hexanone	ND	12	0.90	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.64	ug/kg	
75-09-2	Methylene chloride	4.4	2.4	0.63	ug/kg	
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	2.6	5.9	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.47  
**4**

## Report of Analysis

<b>Client Sample ID:</b>	VL4-1(0.5-1.5)-022814	<b>Date Sampled:</b>	02/28/14
<b>Lab Sample ID:</b>	MC28642-17	<b>Date Received:</b>	03/01/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.9
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.68	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	1.3	2.4	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.48	11	ug/kg	JN
627-27-0	3-Buten-1-ol	7.85	7.5	ug/kg	JN
	Total TIC, Volatile		18.5	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL4-1(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-17	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37357.D	1	03/11/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	67	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	27	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	26.2	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	27.8	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	39.3	110	13	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	17.6	270	11	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	22.4	110	13	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.47  
**4**

# Report of Analysis

<b>Client Sample ID:</b> VL4-1(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-17	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.4	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	28.7	270	9.9	ug/kg	J
206-44-0	Fluoranthene	34.4	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	13	ug/kg	
99-09-2	3-Nitroaniline	ND	540	29	ug/kg	
100-01-6	4-Nitroaniline	ND	540	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	29.5	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	76%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL4-1(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-17 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 91.9
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6200	ug/kg	JN
	Total TIC, Semi-Volatile		6200	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.47  
4

# Report of Analysis

<b>Client Sample ID:</b> VL4-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-17	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.48 B	0.91	0.14	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.0	0.91	0.19	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	29.2	4.6	0.066	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.10 B	0.37	0.022	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.055 B	0.37	0.039	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	127000	4600	57	mg/kg	10	03/04/14	03/06/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	7.7	0.91	0.087	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	2.6 B	4.6	0.043	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	12.8	2.3	0.51	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	8390	9.1	0.80	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	96.9	0.91	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	65100	460	4.7	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	315	1.4	0.037	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0086 B	0.032	0.0071	mg/kg	1	03/06/14	03/07/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	7.2	3.7	0.040	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	445 B	460	7.8	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	1250	460	3.0	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	14.3	0.91	0.12	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	38.2	1.8	0.15	mg/kg	1	03/04/14	03/05/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16823
- (2) Instrument QC Batch: MA16824
- (3) Instrument QC Batch: MA16831
- (4) Prep QC Batch: MP22586
- (5) Prep QC Batch: MP22603

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.47  
4



## Report of Analysis

<b>Client Sample ID:</b> VL4-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-17	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.9		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	9.0		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

4.47  
4

# Report of Analysis

<b>Client Sample ID:</b> VL4-1(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-17A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.31 B	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0053 B			0.050	0.00040	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.013	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/06/14	03/07/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.057 B			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Instrument QC Batch: MA16834
- (4) Prep QC Batch: MP22606
- (5) Prep QC Batch: MP22611

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL4-1(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-17B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 91.9
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0093 B		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.10 B		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00070 B		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.025		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0049 B		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.028		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	19.1		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.15		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.35		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.019 B		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0012 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.13		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.49  
4

## Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-18	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.0
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63629.D	1	03/07/14	KD	n/a	n/a	MSM2230

Run #1	Initial Weight	Final Volume
Run #2	4.11 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	69.4	14	4.0	ug/kg	
71-43-2	Benzene	1.2	0.72	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.9	0.30	ug/kg	
75-25-2	Bromoform	ND	2.9	0.51	ug/kg	
74-83-9	Bromomethane	ND	2.9	0.86	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.4	ug/kg	
75-15-0	Carbon disulfide	2.6	7.2	0.19	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.9	0.31	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	0.23	ug/kg	
75-00-3	Chloroethane	ND	7.2	1.1	ug/kg	
67-66-3	Chloroform	ND	2.9	0.24	ug/kg	
74-87-3	Chloromethane	ND	7.2	0.81	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	0.46	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.9	0.38	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.9	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.9	0.59	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.9	0.65	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.9	0.60	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.9	0.60	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	0.60	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	0.32	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	0.38	ug/kg	
100-41-4	Ethylbenzene	ND	2.9	0.99	ug/kg	
591-78-6	2-Hexanone	ND	14	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.9	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.2	0.77	ug/kg	
75-09-2	Methylene chloride	4.3	2.9	0.76	ug/kg	
100-42-5	Styrene	ND	7.2	0.24	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	0.56	ug/kg	
127-18-4	Tetrachloroethene	ND	2.9	0.45	ug/kg	
108-88-3	Toluene	2.5	7.2	0.29	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.9	0.31	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-18	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 85.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.9	0.82	ug/kg	
79-01-6	Trichloroethene	ND	2.9	0.35	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	1.3	ug/kg	
1330-20-7	Xylene (total)	0.85	2.9	0.31	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	15	ug/kg	JN
	Total TIC, Volatile		15	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-18	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 85.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37358.D	1	03/11/14	KR	03/03/14	OP37042	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	10.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	560	25	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1100	28	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1100	32	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1100	180	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	2200	280	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1100	140	ug/kg	
95-48-7	2-Methylphenol	ND	1100	44	ug/kg	
106-44-5	4-Methylphenol	ND	1100	57	ug/kg	
88-75-5	2-Nitrophenol	ND	1100	30	ug/kg	
100-02-7	4-Nitrophenol	ND	2200	210	ug/kg	
87-86-5	Pentachlorophenol	ND	1100	78	ug/kg	
108-95-2	Phenol	ND	560	32	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1100	28	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1100	27	ug/kg	
83-32-9	Acenaphthene	ND	220	30	ug/kg	
208-96-8	Acenaphthylene	201	220	22	ug/kg	J
120-12-7	Anthracene	ND	220	27	ug/kg	
56-55-3	Benzo(a)anthracene	ND	220	29	ug/kg	
50-32-8	Benzo(a)pyrene	ND	220	24	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	220	28	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	220	22	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	220	34	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	560	28	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	560	23	ug/kg	
91-58-7	2-Chloronaphthalene	ND	560	30	ug/kg	
106-47-8	4-Chloroaniline	ND	1100	28	ug/kg	
86-74-8	Carbazole	ND	220	26	ug/kg	
218-01-9	Chrysene	ND	220	28	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	560	26	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	560	34	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	560	40	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	560	34	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814	
<b>Lab Sample ID:</b> MC28642-18	<b>Date Sampled:</b> 02/28/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/01/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 85.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	560	29	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	560	32	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	560	30	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1100	74	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1100	28	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	560	56	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	220	26	ug/kg	
132-64-9	Dibenzofuran	ND	220	31	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	560	59	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	560	17	ug/kg	
84-66-2	Diethyl phthalate	ND	560	28	ug/kg	
131-11-3	Dimethyl phthalate	ND	560	32	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	560	21	ug/kg	
206-44-0	Fluoranthene	34.3	220	30	ug/kg	J
86-73-7	Fluorene	ND	220	30	ug/kg	
118-74-1	Hexachlorobenzene	ND	560	35	ug/kg	
87-68-3	Hexachlorobutadiene	ND	560	32	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1100	280	ug/kg	
67-72-1	Hexachloroethane	ND	560	27	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	220	25	ug/kg	
78-59-1	Isophorone	ND	560	26	ug/kg	
91-57-6	2-Methylnaphthalene	ND	220	28	ug/kg	
88-74-4	2-Nitroaniline	ND	1100	28	ug/kg	
99-09-2	3-Nitroaniline	ND	1100	61	ug/kg	
100-01-6	4-Nitroaniline	ND	1100	28	ug/kg	
91-20-3	Naphthalene	ND	220	36	ug/kg	
98-95-3	Nitrobenzene	ND	560	30	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	560	32	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	560	34	ug/kg	
85-01-8	Phenanthrene	ND	220	30	ug/kg	
129-00-0	Pyrene	28.0	220	26	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	560	31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	83%		30-130%
4165-62-2	Phenol-d5	79%		30-130%
118-79-6	2,4,6-Tribromophenol	90%		30-130%
4165-60-0	Nitrobenzene-d5	81%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814 <b>Lab Sample ID:</b> MC28642-18 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 02/28/14 <b>Date Received:</b> 03/01/14 <b>Percent Solids:</b> 85.0
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	89%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	13000	ug/kg	JN
	Total TIC, Semi-Volatile		13000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.50  
4



# Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-18	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.23 B	0.93	0.14	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.5	0.93	0.19	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	93.2	4.7	0.068	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.49	0.37	0.022	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.21 B	0.37	0.039	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	13200	470	5.9	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	17.1	0.93	0.089	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	8.2	4.7	0.044	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	16.4	2.3	0.52	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	17200	9.3	0.81	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	40.3	0.93	0.16	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	9690	470	4.8	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	613	1.4	0.037	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.037	0.036	0.0078	mg/kg	1	03/06/14	03/07/14 SA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	17.8	3.7	0.041	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	901	470	8.0	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.93	0.32	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	2540	470	3.1	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.29 B	0.93	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	32.0	0.93	0.12	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	58.8	1.9	0.15	mg/kg	1	03/04/14	03/05/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16823
- (2) Instrument QC Batch: MA16824
- (3) Prep QC Batch: MP22586
- (4) Prep QC Batch: MP22603

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-18	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.50  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85		%	1	03/03/14	CF	SM21 2540 B MOD.
pH	8.7		su	1	03/03/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-18A	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Barium	0.71	D005	100	0.50	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.82			0.015	0.00081	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/07/14	03/07/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0070 B			0.040	0.00057	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.046 B			0.10	0.00050	mg/l	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16827
- (2) Instrument QC Batch: MA16830
- (3) Prep QC Batch: MP22606
- (4) Prep QC Batch: MP22611

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL4-2(0.5-1.5)-022814	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> MC28642-18B	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.085		0.010	0.0029	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0081		0.0040	0.00025	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0023 B		0.0040	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.22		0.010	0.0014	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.054		0.050	0.00040	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.22		0.025	0.0070	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Iron	215		0.10	0.020	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.28		0.010	0.0017	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.8		0.015	0.00081	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00070		0.00020	0.00010	mg/l	1	03/05/14	03/06/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.22		0.040	0.00057	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0041 B		0.0050	0.0010	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.72		0.10	0.00050	mg/l	1	03/05/14	03/06/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16815
- (2) Instrument QC Batch: MA16826
- (3) Prep QC Batch: MP22595
- (4) Prep QC Batch: MP22600

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

4.52  
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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information				Project Information							Requested Analysis (see TEST CODE sheet)												Matrix Codes	
Company Name <b>Weston Solutions</b>				Project Name <b>IDOT-048</b>																			DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB - Rinse Blank TB-Trip Blank	
Street Address <b>750 E. Buncker Ct. Ste 500</b>				Street <b>Narbon Hills IL 60061</b>																				
City <b>Narbon Hills IL 60061</b>				Billing Information (If different from Report to)																				
Project Contact <b>S. Babuski-Human</b>				Company Name																				
Phone # <b>847-918-4018</b>				Street Address																				
Fax # <b>-4055</b>				City <b>Narbon Hills IL 60061</b>																				
Sampler(s) Name(s) <b>T. Walls</b>				Attention: POC#																				
Phone # <b>847-918-4130</b>																								
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY						
			Date	Time	Sampled by			HCl	NHCl	HNCS	H3BO4	NOVE	DI Water	MEDH	ENCORE	Biofilm								
-1	VL1-3(0.5-1.5)-022714		2-27-14	1350	TW S	3												X	X	X	X	X		
-2	VL1-4(0.5-1.5)-022714			1405															X	X	X	X		
-3	VL1-4(0.5-1.5)-022714D			1405															X	X	X	X		
-4	VL1-5(0.5-1.5)-022714			1425															X	X	X	X		
-5	VL1-6(0.5-1.5)-022714			1440															X	X	X	X		
-6	VL1-7(0.5-1.5)-022714		2-27-14	1455															X	X	X	X		
-7	GC-1(0.5-1.5)-022814		2-28-14	0745															X	X	X	X		
-8	AL2-4(0.5-1.5)-022814			0800															X	X	X	X		
-9	FS2-1(0.5-1.5)-022814			0820															X	X	X	X		14B
-10	AL2-5(0.5-1.5)-022814			0835															X	X	X	X		
-11	RV-1(0.5-1.5)-022814			0855															X	X	X	X		
-12	AL2-6(0.5-1.5)-022814		2-28-14	0905	TW S	3													X	X	X	X		
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush TIA data available VIA Lablink				Approved By (Accutest PM): / Date: _____ _____				Data Deliverable Information <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary												Comments / Special Instructions				
								Emergency & Rush TIA data available VIA Lablink																
Relinquished by Sampler: 1 <b>Matthew A. Walls</b> Date Time: <b>2-28-14 / 1455</b>													Relinquished By: 2 <b>FX</b> Date Time: _____											
Relinquished by Sampler: 3 <b>FX</b> Date Time: <b>3/1/14 10:00</b>													Relinquished By: 4 _____ Date Time: _____											
Relinquished by: 5 _____ Date Time: _____													Relinquished By: 4 _____ Date Time: _____											
Custody Seal # <input type="checkbox"/> Intact     Preserved where applicable <input type="checkbox"/> Not intact													On Ice     Cooler Temp. <input checked="" type="checkbox"/> 0.5° 0.5°, 1.0°											

MC28642: Chain of Custody

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Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL. 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28642</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes													
Company Name <b>Weston Solutions</b>		Project Name <b>IDIT-048</b>										<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           VDCs SADCs Total Metals TCLP/SPLP Metals PH         </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           DW - Drinking Water GW - Ground Water LW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LID - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank         </div> </div>										LAB USE ONLY													
Street Address <b>750 F. Bunker Ct. Ste 500</b>		Street: <b>Newton Hills FL 32661</b>																																	
City <b>Newton Hills FL 32661</b>		Billing Information (if different from Report to)																																	
Project Contact <b>S. Babinsku www</b>		Company Name																																	
Phone # <b>817-918-4018</b>		Street Address																																	
Fax # <b>-4055</b>		City <b>Newton Hills FL 32661</b>																																	
Sampler(s) Name(s) <b>T. Wells</b>		Client POC#										City <b>Newton Hills FL 32661</b>										State <b>FL</b>	Zip <b>32661</b>												
Phone # <b>817-918-4130</b>		Project Manager										Attention:										PC#													
Accutest Sample #	Field ID / Point of Collection	MECHDI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles																											
			Date	Time	Sampled by			HCl	MCH	PHOS	PHOS4	NONE	D/Water	MCH	ENCORE	Residue																			
13	AL2-7(0.5-1.5)-022814		2-28-14	0920	TW	S	3											X	X	X	X	X													
14	AL2-7(0.5-1.5)-022814D			0920																															
15	F33-1(0.5-1.5)-022814			0935																															
16	TN-1(0.5-1.5)-022814			0950																															
17	VL4-1(0.5-1.5)-022814			1010																															
18	VL4-2(0.5-1.5)-022814			1020																															
19	RI-1(0.5-1.5)-022814			1035																															
20	LN-1(0.5-1.5)-022814		2-28-14	1050															X	X	X	X	X												
Data Deliverable Information																																			
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush TJA data available VIA Lablink</small>										Approved By (Accutest PM): / Date: _____										<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>						Comments / Special Instructions									
Sample Custody must be documented below each time samples change possession, including courier delivery.																																			
Relinquished by Sampler: <b>17 Matthew A. Wells</b>		Date Time: <b>2-28-14/1455</b>		Received By: <b>[Signature]</b>		Date Time: <b>2/28/14 2:55</b>		Relinquished By: <b>2</b>		Date Time:		Received By: <b>FPO</b>		<b>CHICAGO SC</b>																					
Relinquished by Sampler: <b>3 [Signature]</b>		Date Time: <b>3/1/14 10:00</b>		Received By: <b>[Signature]</b>		Date Time:		Relinquished By: <b>4</b>		Date Time:		Received By:																							
Relinquished by: <b>5</b>		Date Time:		Received By: <b>5</b>		Date Time:		Custody Seal #		<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/>		On Ice <input type="checkbox"/>		Cooler Temp.																					

5.1 5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

16702 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.340223677 Longitude: -88.523769372  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.340223677 Longitude: -88.523769372

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS AL2-9 AND TF-3 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-19. SEE FIGURE 3-4 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28683

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

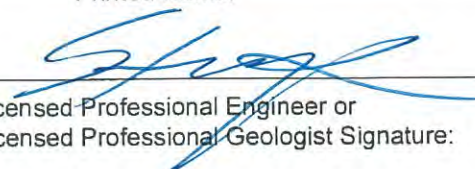
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

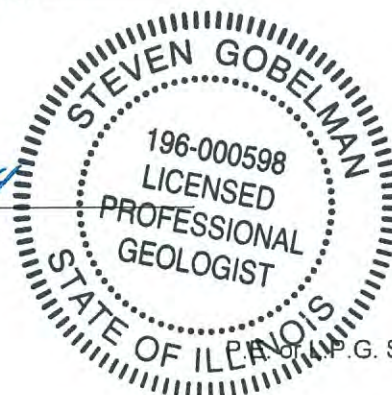
Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/19

Date:



P.E., L.P.G. Seal:



**Summary Table of ISGS Site No. 2792-19**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL2-9(0.5-1.5)-030314	TF-3(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	
Location ID	AL2-9	TF-3	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.2	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Acetone	29.8	26.5	25000
Benzene	2	2.2	30
Carbon disulfide	0.55 J	ND	9000
Ethylbenzene	1.5 J	1.3 J	13000
Methyl ethyl ketone	3.8 J	ND	17000
Methylene chloride	2.2	3.1	20
Toluene	4.4	4.3 J	12000
Xylene (Total)	2.8	4.5	5600
<b>SVOCs (ug/kg)</b>			
Benzo(a)anthracene	ND	89 J	900 / 1100 / 1800
Fluoranthene	112 J	94.3 J	3100000
Pyrene	118 J	96.4 J	2300000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	1.6	3.4	11.3 / 13
Barium, Total	19.8	27.7	1500
Beryllium, Total	0.097 J	0.18 J	22
Cadmium, Total	ND	0.24 J	5.2
Calcium, Total	151000	65500	---
Chromium, Total	9.2	7.1	21
Cobalt, Total	1.9 J	3.1 J	20
Copper, Total	11.3	12.6	2900
Iron, Total	5770	8240	15000 / 15900
Lead, Total	28.6 J	63.4 J	107
Magnesium, Total	93900	35300	325000
Manganese, Total	289 J	286 J	630 / 636
Mercury, Total	ND	0.018 J	0.89
Nickel, Total	5.7	7.6	100
Potassium, Total	375 J	402 J	---
Selenium, Total	0.89	ND	1.3
Sodium, Total	1410	1770	---
Vanadium, Total	9.2	15.3	550
Zinc, Total	42.5 J	45.8 J	5100
<b>TCLP Metals (mg/l)</b>			
Barium, TCLP	0.22 J	0.22 J	2
Cadmium, TCLP	0.0025 J	0.0029 J	0.005
Cobalt, TCLP	0.0028 J	0.0009 J	1
Lead, TCLP	0.013	0.013	0.0075
Manganese, TCLP	1.3	1.1	0.15
Nickel, TCLP	0.016 J	0.013 J	0.1
Selenium, TCLP	0.0091 J	0.0083 J	0.05
Zinc, TCLP	0.16	0.15	5

**Summary Table of ISGS Site No. 2792-19**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL2-9(0.5-1.5)-030314	TF-3(0.5-1.5)-030314	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/3/2014	3/3/2014	
Location ID	AL2-9	TF-3	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.01	0.014	0.05
Barium, SPLP	0.1 J	0.14 J	2
Beryllium, SPLP	0.0005 J	0.0008 J	0.004
Cadmium, SPLP	0.001 J	0.0015 J	0.005
Chromium, SPLP	0.022	0.028	0.1
Cobalt, SPLP	0.0048 J	0.0084 J	1
Copper, SPLP	0.034	0.051	0.65
Iron, SPLP	16.6 J	24.2 J	5
Lead, SPLP	0.2	0.31	0.0075
Manganese, SPLP	0.31	0.62	0.15
Nickel, SPLP	0.016 J	0.025 J	0.1
Silver, SPLP	0.0015 J	0.0025 J	0.05
Zinc, SPLP	0.19	0.28	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28683

Sampling Date: 03/03/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **343**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-9	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28512.D	1	03/11/14	AMY	n/a	n/a	MSV1068

Run #1	Initial Weight	Final Volume
Run #2	5.10 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	26.5	11	3.1	ug/kg	
71-43-2	Benzene	2.2	0.56	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.67	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	ND	5.6	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.6	0.84	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.6	0.63	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.46	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	1.3	2.2	0.77	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.84	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.6	0.60	ug/kg	
75-09-2	Methylene chloride	3.1	2.2	0.59	ug/kg	
100-42-5	Styrene	ND	5.6	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.35	ug/kg	
108-88-3	Toluene	4.3	5.6	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-9	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.64	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	4.5	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	25	ug/kg	JN
109-66-0	Pentane	2.43	17	ug/kg	JN
110-54-3	Hexane	4.28	7.5	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	5.34	4.4	ug/kg	JN
123-73-9	2-Butenal, (E)-	7.39	1.3	ug/kg	JN
142-82-5	Heptane	7.58	3.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.35	6.7	ug/kg	JN
107-84-6	Butane, 1-chloro-3-methyl-	9.82	2.3	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.55	1.4	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.98	2.1	ug/kg	JN
	Total TIC, Volatile		71.5	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	TF-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-9	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18066.D	5	03/10/14	KR	03/05/14	OP37062	MSW791
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	190	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	67	ug/kg	
56-55-3	Benzo(a)anthracene	89.0	550	71	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	550	60	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	84	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	TF-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-9	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	72	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	74	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	77	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	94.3	550	76	ug/kg	J
86-73-7	Fluorene	ND	550	74	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	87	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	89	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	84	ug/kg	
85-01-8	Phenanthrene	ND	550	75	ug/kg	
129-00-0	Pyrene	96.4	550	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	61%		30-130%
4165-62-2	Phenol-d5	61%		30-130%
118-79-6	2,4,6-Tribromophenol	78%		30-130%
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.1
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	78%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	5200	ug/kg	JN
	Total TIC, Semi-Volatile		5200	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4



# Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.4	0.88	0.18	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.7	4.4	0.064	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.18 B	0.35	0.021	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.24 B	0.35	0.037	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	65500	4400	55	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	7.1	0.88	0.084	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.1 B	4.4	0.041	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	12.6	2.2	0.49	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	8240	8.8	0.77	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	63.4	0.88	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	35300	440	4.5	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	286	1.3	0.035	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.018 B	0.035	0.0077	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	7.6	3.5	0.039	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	402 B	440	7.5	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1770	440	2.9	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.88	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.3	0.88	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	45.8	1.8	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16831
- (2) Instrument QC Batch: MA16841
- (3) Instrument QC Batch: MA16842
- (4) Prep QC Batch: MP22607
- (5) Prep QC Batch: MP22634

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.25  
**4**

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.1		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.4		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.25  
**4**

# Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.22 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0029 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00090 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.013	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.1			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0083 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.15			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.014		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.14 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00080 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0015 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.028		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0084 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.051		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	24.2		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.31		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.62		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.025 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0025 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.28		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.27  
4

# Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314		<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-10		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 91.6
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28462.D	1	03/07/14	AMY	n/a	n/a	MSV1066
Run #2 <sup>a</sup>	V28513.D	1	03/11/14	AMY	n/a	n/a	MSV1068

Run #	Initial Weight	Final Volume
Run #1	6.57 g	5.0 ml
Run #2	4.48 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	29.8	8.3	2.3	ug/kg	
71-43-2	Benzene	2.0	0.42	0.28	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	0.17	ug/kg	
75-25-2	Bromoform	ND	1.7	0.29	ug/kg	
74-83-9	Bromomethane	ND	1.7	0.50	ug/kg	
78-93-3	2-Butanone (MEK)	3.8	8.3	2.6	ug/kg	J
75-15-0	Carbon disulfide	0.55	4.2	0.11	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.7	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	0.13	ug/kg	
75-00-3	Chloroethane	ND	4.2	0.63	ug/kg	
67-66-3	Chloroform	ND	1.7	0.14	ug/kg	
74-87-3	Chloromethane	ND	4.2	0.47	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	0.27	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	0.22	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	0.27	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	0.34	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	0.38	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	0.35	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.7	0.35	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	0.35	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	0.22	ug/kg	
100-41-4	Ethylbenzene	1.5	1.7	0.57	ug/kg	J
591-78-6	2-Hexanone	ND	8.3	0.63	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	0.15	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.2	0.45	ug/kg	
75-09-2	Methylene chloride	2.2	1.7	0.44	ug/kg	
100-42-5	Styrene	ND	4.2	0.14	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	0.33	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	0.26	ug/kg	
108-88-3	Toluene	4.4	4.2	0.17	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.7	0.18	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.28  
4

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.7	0.48	ug/kg	
79-01-6	Trichloroethene	ND	1.7	0.20	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	0.76	ug/kg	
1330-20-7	Xylene (total)	2.8	1.7	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	94%	70-130%
2037-26-5	Toluene-D8	77%	76%	70-130%
460-00-4	4-Bromofluorobenzene	129%	123%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	24	ug/kg	JN
109-66-0	Pentane	2.42	14	ug/kg	JN
110-00-9	Furan	2.65	.79	ug/kg	JN
110-54-3	Hexane	4.25	6.1	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.32	4.2	ug/kg	JN
123-75-1	Pyrrolidine	6.81	1.4	ug/kg	JN
3404-61-3	1-Hexene, 3-methyl-	7.36	1.6	ug/kg	JN
142-82-5	Heptane	7.55	2.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.32	5.8	ug/kg	JN
565-80-0	3-Pentanone, 2,4-dimethyl-	10.31	1.4	ug/kg	JN
66-25-1	Hexanal	10.47	2.5	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.96	2.8	ug/kg	JN
	Total TIC, Volatile		67.29	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-10	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18084.D	5	03/11/14	KR	03/05/14	OP37062	MSW792
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	78	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	77	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	540	73	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	540	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	540	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	540	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	540	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	540	64	ug/kg	
218-01-9	Chrysene	ND	540	68	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	83	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	98	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	83	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-10	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	72	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	65	ug/kg	
132-64-9	Dibenzofuran	ND	540	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	68	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	112	540	74	ug/kg	J
86-73-7	Fluorene	ND	540	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	79	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	60	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	540	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	78	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	540	74	ug/kg	
129-00-0	Pyrene	118	540	64	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-10 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.6
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

Client Sample ID: AL2-9(0.5-1.5)-030314

Lab Sample ID: MC28683-10

Matrix: SO - Soil

Project: IDOT 048 - McHenry County, IL

Date Sampled: 03/03/14

Date Received: 03/05/14

Percent Solids: 91.6

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	1.6	0.88	0.18	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	19.8	4.4	0.064	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.097 B	0.35	0.021	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	151000	4400	55	mg/kg	10	03/06/14	03/10/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.2	0.88	0.084	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	1.9 B	4.4	0.041	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	11.3	2.2	0.49	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	5770	8.8	0.77	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	28.6	0.88	0.15	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	93900	4400	45	mg/kg	10	03/06/14	03/10/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	289	1.3	0.035	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0076 U	0.035	0.0076	mg/kg	1	03/11/14	03/11/14 SA	SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	5.7	3.5	0.039	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	375 B	440	7.5	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.89	0.88	0.31	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1410	440	2.9	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.88	0.12	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	9.2	0.88	0.12	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	42.5	1.8	0.14	mg/kg	1	03/06/14	03/06/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

(1) Instrument QC Batch: MA16831

(2) Instrument QC Batch: MA16841

(3) Instrument QC Batch: MA16842

(4) Prep QC Batch: MP22607

(5) Prep QC Batch: MP22634

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.6		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.2		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-10A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.22 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0025 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0028 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.013	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0091 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.16			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL2-9(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-10B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.6
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.010		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.10 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00050 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.022		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0048 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.034		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	16.6		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.20		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.31		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.016 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0015 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.19		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Client / Reporting Information Company Name: <b>Woston Solutions</b> Street Address: <b>750 F. Bunker Ct Ste 500</b> City: <b>Norwich Hills IL</b> State: <b>IL</b> Zip: <b>60051</b> Project Contact: <b>S. Babusankumar</b> E-mail: _____ Phone #: <b>847-918-4018</b> Fax #: <b>4055</b> Sampler(s) Name(s): <b>T. Wells</b> Phone #: <b>817-918-4130</b>		Project Information Project Name: <b>IDOT-048 McHenry County</b> Street: _____ Billing Information (If different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Client PO#: _____ Project Manager: <b>Matt Maxwell</b> Attention: _____ PO#: _____		FED-EX Tracking # _____ Accutest Quote # _____ Bottle Order Control # _____ Accutest Job # <b>MC28683</b>													
Requested Analysis (see TEST CODE sheet) JCS SNOCs Total Metals TCLP/SPLP metals PH		Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank															
Accutest Sample #	Field ID / Point of Collection	MEQHD/Val #	Date	Time	Sampled by	Matrix	# of bottles	HC	NH3	NH4	NH2S	PH	DI Water	MECH	ENCORE	Surfline	LAB USE ONLY
-1	LL-1(0.5-1.5)-030314		3-3-14	0805	TW	SO	3										
-2	LL-1(0.5-1.5)-080314D			0805													
-3	RS1-1(0.5-1.5)-030314			0825													
-4	RS1-2(0.5-1.5)-030314			0840													
-5	RE3-1(0.5-1.5)-030314			0900													
-6	RES2-1(0.5-1.5)-030314			0915													
-7	TF-1(0.5-1.5)-030314			0925													
-8	TF-2(0.5-1.5)-030314			1105													
-9	TF-3(0.5-1.5)-030314			1120													
-10	AL2-9(0.5-1.5)-030314			1135													
-11	AL2-8(0.5-1.5)-030314			1145													
-12	CN-1(0.5-1.5)-030314		3-3-14	1200	TW	SO	3										
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink								Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary								Comments / Special Instructions <b>14E</b>	
Sample Custody must be documented below each time samples change possession, including courier delivery.																	
Relinquished by Sampler: <b>7:20 AM</b> Date Time: <b>3-4-14 / 15:40</b>		Received By: <b>[Signature]</b> Date Time: <b>3/4/14 15:40</b>		Relinquished By: <b>[Signature]</b> Date Time: <b>3/5/14 9:30</b>		Received By: <b>[Signature]</b> Date Time: _____		Relinquished by Sampler: <b>3</b> Date Time: _____		Received By: <b>4</b> Date Time: _____		Relinquished by Sampler: <b>5</b> Date Time: _____		Received By: <b>5</b> Date Time: _____		Custody Seal # <input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/> _____ On Ice <input type="checkbox"/> <b>1.5°C</b> Cooler Temp. <b>6.9°C</b>	

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FED-EX Tracking #  
Bottle Order Control #  
Accutest Quote #  
Accutest Job # *MC 28683*

**Client / Reporting Information** **Project Information** **Requested Analysis (see TEST CODE sheet)** **Matrix Codes**

<b>Client / Reporting Information</b> Company Name: <i>Western Solutions</i> Street Address: <i>750 E. Bunker Ct Ste 500</i> City: <i>Vernon Hills IL</i> State: <i>IL</i> Zip: <i>60061</i> Project Contact: <i>S. Babusukumar</i> E-mail: _____ Phone #: <i>847-918-4018</i> Fax #: <i>-4055</i> Sampler(s) Name(s): <i>T. Wallis</i> Phone #: <i>847-918-4130</i>			<b>Project Information</b> Project Name: <i>IDOT-048 McHenry County</i> Billing Information (If different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Client POB: _____ Project Manager: <i>Matt Murrell</i> Attention: _____ FO#: _____						<b>Requested Analysis (see TEST CODE sheet)</b> VCS SVCS Total Metals TCLP/SPLB Metals PH										<b>Matrix Codes</b> D/W - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment CI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank			
Accutest Sample #	Field ID / Point of Collection	MECH/ID Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NO <sub>3</sub>	NO <sub>2</sub>	H <sub>2</sub> SO <sub>4</sub>	NO <sub>3</sub>	NO <sub>2</sub>	D/W	MEDH	ENCODE	Blanket	LAB USE ONLY				
-13	CN-2(0.5-1.5)-030314		3-3-14	1210	TW	SO	3											X	X	X	X	X
-14	CN-3(0.5-1.5)-030314			1225																		
-15	CN-3(0.5-1.5)-030314			1225																		
-16	AL3-1(0.5-1.5)-030314			1240																		
-17	AL3-3(0.5-1.5)-030314			1300																		
-18	AL3-5(0.5-1.5)-030314			1315																		
-19	AL3-7(0.5-1.5)-030314			1325																		
-20	AL3-8(0.5-1.5)-030314		3-3-14	1350	TW	SO	3											X	X	X	X	X

Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink	Approved By (Accutest PM) / Date: _____	Data Deliverable Information <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary	Comments / Special Instructions
--	---	---	---------------------------------

Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by Sampler: 1 <i>T. Wallis</i> Date Time: <i>3-4-14/15:40</i>	Received By: 1 <i>[Signature]</i> Date Time: <i>3/4/14 15:40</i>	Relinquished By: 2 <i>[Signature]</i> Date Time: <i>3/5/14 9:30</i>	Received By: 2 <i>[Signature]</i> Date Time: _____				
Relinquished by Sampler: 3 _____ Date Time: _____	Received By: 3 _____ Date Time: _____	Relinquished By: 4 _____ Date Time: _____	Received By: 4 _____ Date Time: _____				
Relinquished by: 5 _____ Date Time: _____	Received By: 5 _____ Date Time: _____	Custody Seal # _____	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact				

MC28683: Chain of Custody  
Page 2 of 3

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16000 block of US 14 (between Dimmel Road and Park Lane Drive)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.339550639 Longitude: -88.519832108  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.339550639 Longitude: -88.519832108

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS CN-1 AND CN-3 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-20. SEE FIGURES 3-4 AND 3-5 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28683

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



Seal:

**Summary Table of ISGS Site No. 2792-20**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	CN-1(0.5-1.5)-030314	CN-3(0.5-1.5)-030314	CN-3(0.5-1.5)-030314D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/3/2014	
Location ID	CN-1	CN-3	CN-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.1	7.8	7.8	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Acetone	52.3	41.2	35.9 J	25000
Benzene	3.2	4.6	4.1 J	30
Carbon disulfide	ND	0.9 J	ND	9000
Ethylbenzene	2.3	3.9	3.6 J	13000
Methyl ethyl ketone	8.6 J	ND	ND	17000
Methylene chloride	2	5.4	5.2 J	20
Toluene	6.8	11.3	10.4 J	12000
Xylene (Total)	4.3	12.3	12.7 J	5600
<b>SVOCs (ug/kg)</b>				
Benzo(a)anthracene	ND	112 J	94 J	900 / 1100 / 1800
Benzo(g,h,i)perylene	ND	ND	132 J	2300000
bis(2-Ethylhexyl)phthalate	30.2 J	ND	ND	46000
Chrysene	ND	79.4 J	70.2 J	88000
Diethylphthalate	ND	ND	461 J	470000
Fluoranthene	ND	156 J	118 J	3100000
Pyrene	ND	130 J	108 J	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	6.2	3.9	3.7	11.3 / 13
Barium, Total	43.3	37.2	48.3	1500
Beryllium, Total	0.35 J	0.18 J	0.21 J	22
Cadmium, Total	0.059 J	0.15 J	0.2 J	5.2
Calcium, Total	27300	82200	106000	---
Chromium, Total	15	18.4	11.7	21
Cobalt, Total	6.7	3.8 J	5	20
Copper, Total	21	14	15.7	2900
Iron, Total	14100	8820	10100	15000 / 15900
Lead, Total	13.1 J	80.2 J	87.8 J	107
Magnesium, Total	16100	44800	55800	325000
Manganese, Total	240 J	276 J	421 J	630 / 636
Mercury, Total	0.02 J	0.01 J	0.0088 J	0.89
Nickel, Total	16	9.8	15.8	100
Potassium, Total	663 J	433 J	481 J	---
Sodium, Total	979	1490	1720	---
Vanadium, Total	29.3	17.3	20.1	550
Zinc, Total	43.1 J	52.3 J	59.2 J	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	0.0034 J	ND	ND	0.05
Barium, TCLP	0.38 J	0.43 J	0.43 J	2
Cadmium, TCLP	0.0013 J	0.0027 J	0.0028 J	0.005
Chromium, TCLP	ND	0.0018 J	0.0021 J	0.1
Cobalt, TCLP	0.018 J	0.0014 J	0.0014 J	1
Copper, TCLP	ND	ND	0.018 J	0.65
Iron, TCLP	0.14	ND	ND	5
Lead, TCLP	0.0018 J	0.021	0.022	0.0075
Manganese, TCLP	4.8	1.1	1.1	0.15
Nickel, TCLP	0.019 J	0.012 J	0.011 J	0.1
Selenium, TCLP	0.01 J	0.011 J	0.01 J	0.05
Zinc, TCLP	0.024 J	0.11	0.13	5

**Summary Table of ISGS Site No. 2792-20**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	CN-1(0.5-1.5)-030314	CN-3(0.5-1.5)-030314	CN-3(0.5-1.5)-030314D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/3/2014	
Location ID	CN-1	CN-3	CN-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
SPLP Metals (mg/l)				
Arsenic, SPLP	0.023	0.013	0.012	0.05
Barium, SPLP	0.19 J	0.17 J	0.16 J	2
Beryllium, SPLP	0.0009 J	0.0008 J	0.0007 J	0.004
Cadmium, SPLP	0.0006 J	0.0012 J	0.0011 J	0.005
Chromium, SPLP	0.033	0.031	0.028	0.1
Cobalt, SPLP	0.018 J	0.0081 J	0.0069 J	1
Copper, SPLP	0.081	0.047	0.042	0.65
Iron, SPLP	40.9 J	21.9 J	19.4 J	5
Lead, SPLP	0.035	0.37	0.29	0.0075
Manganese, SPLP	0.65	0.56	0.46	0.15
Nickel, SPLP	0.046	0.024 J	0.022 J	0.1
Silver, SPLP	0.0032 J	0.0024 J	0.0024 J	0.05
Zinc, SPLP	0.17	0.26	0.23	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28683

Sampling Date: 03/03/14

Report to:

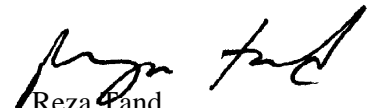
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **343**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> CN-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28464.D	1	03/07/14	AMY	n/a	n/a	MSV1066
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.54 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	52.3	9.2	2.6	ug/kg	
71-43-2	Benzene	3.2	0.46	0.31	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.19	ug/kg	
75-25-2	Bromoform	ND	1.8	0.33	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.55	ug/kg	
78-93-3	2-Butanone (MEK)	8.6	9.2	2.8	ug/kg	J
75-15-0	Carbon disulfide	ND	4.6	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.14	ug/kg	
75-00-3	Chloroethane	ND	4.6	0.69	ug/kg	
67-66-3	Chloroform	ND	1.8	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.6	0.52	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.38	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.41	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.38	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.24	ug/kg	
100-41-4	Ethylbenzene	2.3	1.8	0.63	ug/kg	
591-78-6	2-Hexanone	ND	9.2	0.69	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.6	0.49	ug/kg	
75-09-2	Methylene chloride	2.0	1.8	0.49	ug/kg	
100-42-5	Styrene	ND	4.6	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.36	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.29	ug/kg	
108-88-3	Toluene	6.8	4.6	0.19	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.20	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b> CN-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.53	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.83	ug/kg	
1330-20-7	Xylene (total)	4.3	1.8	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	104%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	30	ug/kg	JN
109-66-0	Pentane	2.42	21	ug/kg	JN
110-54-3	Hexane	4.26	11	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.81	3.3	ug/kg	JN
2452-99-5	Cyclopentane, 1,2-dimethyl-	7.35	2.6	ug/kg	JN
142-82-5	Heptane	7.55	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.32	12	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	12.96	3.4	ug/kg	JN
	Total TIC, Volatile		90.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> CN-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-12	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 83.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18086.D	1	03/11/14	KR	03/05/14	OP37062	MSW792
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	600	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	600	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	600	97	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	600	74	ug/kg	
95-48-7	2-Methylphenol	ND	600	24	ug/kg	
106-44-5	4-Methylphenol	ND	600	30	ug/kg	
88-75-5	2-Nitrophenol	ND	600	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	600	42	ug/kg	
108-95-2	Phenol	ND	300	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	600	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	600	15	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	16	ug/kg	
106-47-8	4-Chloroaniline	ND	600	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	18	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	CN-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-12	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	83.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	600	40	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	600	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	30	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	300	32	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	9.3	ug/kg	
84-66-2	Diethyl phthalate	ND	300	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	30.2	300	11	ug/kg	J
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	600	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	300	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	600	15	ug/kg	
99-09-2	3-Nitroaniline	ND	600	33	ug/kg	
100-01-6	4-Nitroaniline	ND	600	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	300	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	95%		30-130%
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> CN-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-12 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 83.4
---	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	96%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	2400	ug/kg	JN
	Total TIC, Semi-Volatile		2400	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> CN-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.15 U	0.99	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.2	0.99	0.21	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	43.3	5.0	0.072	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.35 B	0.40	0.024	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.059 B	0.40	0.042	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	27300	500	6.2	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	15.0	0.99	0.094	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.7	5.0	0.047	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	21.0	2.5	0.55	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	14100	9.9	0.86	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	13.1	0.99	0.17	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	16100	500	5.1	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	240	1.5	0.040	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.020 B	0.036	0.0080	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	16.0	4.0	0.044	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	663	500	8.5	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.34 U	0.99	0.34	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.50	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	979	500	3.3	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.13 U	0.99	0.13	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	29.3	0.99	0.13	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	43.1	2.0	0.16	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16831
- (2) Instrument QC Batch: MA16842
- (3) Prep QC Batch: MP22607
- (4) Prep QC Batch: MP22634

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> CN-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-12 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 83.4
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	83.4		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> CN-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-12A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0034 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.38 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.018 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.14			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0018 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	4.8			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.019 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.024 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> CN-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-12B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.023		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.19 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00090 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.033		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.018 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.081		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	40.9		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.035		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.65		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.046		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0032 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.17		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)                      B = Indicates a result > = MDL but < RL

4.36  
4

# Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-14	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28499.D	1	03/10/14	AMY	n/a	n/a	MSV1067
Run #2							

Run #	Initial Weight	Final Volume
Run #1	3.26 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	41.2	18	4.9	ug/kg	
71-43-2	Benzene	4.6	0.88	0.59	ug/kg	
75-27-4	Bromodichloromethane	ND	3.5	0.37	ug/kg	
75-25-2	Bromoform	ND	3.5	0.63	ug/kg	
74-83-9	Bromomethane	ND	3.5	1.1	ug/kg	
78-93-3	2-Butanone (MEK)	ND	18	5.4	ug/kg	
75-15-0	Carbon disulfide	0.90	8.8	0.23	ug/kg	J
56-23-5	Carbon tetrachloride	ND	3.5	0.39	ug/kg	
108-90-7	Chlorobenzene	ND	3.5	0.28	ug/kg	
75-00-3	Chloroethane	ND	8.8	1.3	ug/kg	
67-66-3	Chloroform	ND	3.5	0.30	ug/kg	
74-87-3	Chloromethane	ND	8.8	0.99	ug/kg	
124-48-1	Dibromochloromethane	ND	3.5	0.57	ug/kg	
75-34-3	1,1-Dichloroethane	ND	3.5	0.47	ug/kg	
107-06-2	1,2-Dichloroethane	ND	3.5	0.57	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.5	0.73	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.5	0.80	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.5	0.74	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	3.5	0.74	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.5	0.74	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.5	0.40	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.5	0.46	ug/kg	
100-41-4	Ethylbenzene	3.9	3.5	1.2	ug/kg	
591-78-6	2-Hexanone	ND	18	1.3	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	3.5	0.32	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	8.8	0.95	ug/kg	
75-09-2	Methylene chloride	5.4	3.5	0.94	ug/kg	
100-42-5	Styrene	ND	8.8	0.30	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.5	0.69	ug/kg	
127-18-4	Tetrachloroethene	ND	3.5	0.55	ug/kg	
108-88-3	Toluene	11.3	8.8	0.36	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.5	0.38	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.40  
**4**

## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.0
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	3.5	1.0	ug/kg	
79-01-6	Trichloroethene	ND	3.5	0.43	ug/kg	
75-01-4	Vinyl chloride	ND	3.5	1.6	ug/kg	
1330-20-7	Xylene (total)	12.3	3.5	0.39	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	119%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.20	52	ug/kg	JN
109-66-0	Pentane	2.43	31	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.86	8.1	ug/kg	JN
110-54-3	Hexane	4.31	16	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.35	9.3	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.84	4.2	ug/kg	JN
1708-29-8	Furan, 2,5-dihydro-	7.38	3.9	ug/kg	JN
142-82-5	Heptane	7.58	8.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.35	16	ug/kg	JN
66-25-1	Hexanal	10.49	8.2	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.55	6.6	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	12.64	3.6	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.97	10	ug/kg	JN
	Total TIC, Volatile		177.3	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-14	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 87.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18088.D	5	03/11/14	KR	03/05/14	OP37062	MSW792
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	64	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	72	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	81	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	710	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	75	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	530	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	80	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	71	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	70	ug/kg	
83-32-9	Acenaphthene	ND	560	76	ug/kg	
208-96-8	Acenaphthylene	ND	560	56	ug/kg	
120-12-7	Anthracene	ND	560	68	ug/kg	
56-55-3	Benzo(a)anthracene	112	560	73	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	560	61	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	560	71	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	560	56	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	560	85	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	71	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	58	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	77	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	71	ug/kg	
86-74-8	Carbazole	ND	560	67	ug/kg	
218-01-9	Chrysene	79.4	560	70	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	66	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	86	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	87	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	CN-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-14	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	73	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	81	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	75	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	71	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	67	ug/kg	
132-64-9	Dibenzofuran	ND	560	78	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	71	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	82	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	52	ug/kg	
206-44-0	Fluoranthene	156	560	77	ug/kg	J
86-73-7	Fluorene	ND	560	75	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	88	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	82	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	710	ug/kg	
67-72-1	Hexachloroethane	ND	1400	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	560	62	ug/kg	
78-59-1	Isophorone	ND	1400	65	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	72	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	71	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	71	ug/kg	
91-20-3	Naphthalene	ND	560	91	ug/kg	
98-95-3	Nitrobenzene	ND	1400	76	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	81	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	85	ug/kg	
85-01-8	Phenanthrene	ND	560	76	ug/kg	
129-00-0	Pyrene	130	560	66	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	78	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	71%		30-130%
118-79-6	2,4,6-Tribromophenol	83%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 87.0
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6300	ug/kg	JN
57-88-5	Cholesterol	13.49	4500	ug/kg	JN
	Total TIC, Semi-Volatile		10800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
4

# Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.9	0.92	0.19	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	37.2	4.6	0.067	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.18 B	0.37	0.022	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.15 B	0.37	0.039	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	82200	4600	58	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	18.4	0.92	0.087	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.8 B	4.6	0.043	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.0	2.3	0.51	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	8820	9.2	0.80	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	80.2	0.92	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	44800	460	4.7	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	276	1.4	0.037	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.010 B	0.037	0.0082	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	9.8	3.7	0.040	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	433 B	460	7.9	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1490	460	3.0	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.92	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.3	0.92	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	52.3	1.8	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16831
- (2) Instrument QC Batch: MA16841
- (3) Instrument QC Batch: MA16842
- (4) Prep QC Batch: MP22607
- (5) Prep QC Batch: MP22634

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.40  
4

## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	7.8		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.40  
4

# Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-14A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.43 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0027 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0018 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0014 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.021	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.1			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.012 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.011 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.11			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

4.41  
4

## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-14B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.013		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.17 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00080 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0012 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.031		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0081 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.047		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	21.9		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.37		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.56		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.024 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0024 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.26		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)                      B = Indicates a result > = MDL but < RL

4.42  
4

## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314D	
<b>Lab Sample ID:</b> MC28683-15	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28500.D	1	03/10/14	AMY	n/a	n/a	MSV1067
Run #2 <sup>a</sup>	V28467.D	1	03/07/14	AMY	n/a	n/a	MSV1066

Run #	Initial Weight	Final Volume
Run #1	3.78 g	5.0 ml
Run #2	4.88 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	35.9	15	4.2	ug/kg	
71-43-2	Benzene	4.1	0.76	0.51	ug/kg	
75-27-4	Bromodichloromethane	ND	3.0	0.32	ug/kg	
75-25-2	Bromoform	ND	3.0	0.54	ug/kg	
74-83-9	Bromomethane	ND	3.0	0.91	ug/kg	
78-93-3	2-Butanone (MEK)	ND	15	4.6	ug/kg	
75-15-0	Carbon disulfide	ND	7.6	0.20	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.0	0.33	ug/kg	
108-90-7	Chlorobenzene	ND	3.0	0.24	ug/kg	
75-00-3	Chloroethane	ND	7.6	1.1	ug/kg	
67-66-3	Chloroform	ND	3.0	0.26	ug/kg	
74-87-3	Chloromethane	ND	7.6	0.85	ug/kg	
124-48-1	Dibromochloromethane	ND	3.0	0.49	ug/kg	
75-34-3	1,1-Dichloroethane	ND	3.0	0.40	ug/kg	
107-06-2	1,2-Dichloroethane	ND	3.0	0.49	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.0	0.63	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.0	0.68	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.0	0.63	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	3.0	0.63	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.0	0.64	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.0	0.34	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.0	0.40	ug/kg	
100-41-4	Ethylbenzene	3.6	3.0	1.0	ug/kg	
591-78-6	2-Hexanone	ND	15	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	3.0	0.28	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.6	0.82	ug/kg	
75-09-2	Methylene chloride	5.2	3.0	0.80	ug/kg	
100-42-5	Styrene	ND	7.6	0.26	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.0	0.60	ug/kg	
127-18-4	Tetrachloroethene	ND	3.0	0.47	ug/kg	
108-88-3	Toluene	10.4	7.6	0.31	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.0	0.33	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.87	ug/kg	
79-01-6	Trichloroethene	ND	3.0	0.37	ug/kg	
75-01-4	Vinyl chloride	ND	3.0	1.4	ug/kg	
1330-20-7	Xylene (total)	12.7	3.0	0.33	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%	98%	70-130%
2037-26-5	Toluene-D8	78%	75%	70-130%
460-00-4	4-Bromofluorobenzene	129%	131% <sup>b</sup>	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.20	52	ug/kg	JN
109-66-0	Pentane	2.43	29	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.86	7.3	ug/kg	JN
110-54-3	Hexane	4.27	12	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.35	8.2	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.38	3.1	ug/kg	JN
142-82-5	Heptane	7.58	5.9	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.35	14	ug/kg	JN
66-25-1	Hexanal	10.49	14	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.55	7.3	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.64	3.8	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	12.97	11	ug/kg	JN
	Total TIC, Volatile		167.6	ug/kg	J

(a) Confirmation run.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314D	
<b>Lab Sample ID:</b> MC28683-15	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18094.D	5	03/11/14	KR	03/05/14	OP37062	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	560	74	ug/kg	
208-96-8	Acenaphthylene	ND	560	55	ug/kg	
120-12-7	Anthracene	ND	560	67	ug/kg	
56-55-3	Benzo(a)anthracene	94.0	560	72	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	560	60	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	560	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	132	560	55	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	560	84	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	560	65	ug/kg	
218-01-9	Chrysene	70.2	560	69	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	85	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
**4**

## Report of Analysis

<b>Client Sample ID:</b>	CN-3(0.5-1.5)-030314D	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-15	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	72	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	74	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	66	ug/kg	
132-64-9	Dibenzofuran	ND	560	77	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	461	1400	69	ug/kg	J
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	118	560	76	ug/kg	J
86-73-7	Fluorene	ND	560	74	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	87	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	560	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	560	89	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	84	ug/kg	
85-01-8	Phenanthrene	ND	560	75	ug/kg	
129-00-0	Pyrene	108	560	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	77	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4

# Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.7	0.90	0.19	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	48.3	4.5	0.065	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.21 B	0.36	0.021	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.20 B	0.36	0.038	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	106000	4500	57	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.7	0.90	0.085	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.0	4.5	0.042	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.7	2.2	0.50	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10100	9.0	0.78	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	87.8	0.90	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	55800	450	4.6	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	421	1.3	0.036	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0088 B	0.035	0.0077	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	15.8	3.6	0.040	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	481	450	7.7	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1720	450	3.0	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.90	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	20.1	0.90	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	59.2	1.8	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16831
- (2) Instrument QC Batch: MA16841
- (3) Instrument QC Batch: MA16842
- (4) Prep QC Batch: MP22607
- (5) Prep QC Batch: MP22634

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.5		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	7.8		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

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# Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-15A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.43 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0028 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0021 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0014 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.018 B			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.022	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.1			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.011 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.13			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.44  
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## Report of Analysis

<b>Client Sample ID:</b> CN-3(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-15B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.012		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.16 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00070 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0011 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.028		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0069 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.042		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	19.4		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.29		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.46		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.022 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0024 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.23		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

Client / Reporting Information			Project Information				Requested Analysis ( see TEST CODE sheet)										Matrix Codes					
Company Name <b>Weston Solutions</b>			Project Name <b>IDOT-048 McHenry County</b>														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank					
Street Address <b>750 F. Boulevard Ct Ste 500</b>			Street: <b>Newton Hills IL 60051</b>														LAB USE ONLY					
City State Zip <b>Newton Hills IL 60051</b>			Billing Information ( If different from Report to ) Company Name																			
Project Contact <b>S. Babusankumar</b>			Project#																			
Phone # <b>847-918-4018</b>			Client PO#																			
Fax # <b>4055</b>			City State Zip																			
Sampler(s) Name(s) <b>T. Wells</b>			Project Manager <b>Matt Maxwell</b>																			
Phone # <b>847-918-4130</b>			Attention: PO#																			
Accutest Sample #	Field ID / Point of Collection	MEQHD/ Val #	Collection			Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY				
			Date	Time	Samples by			HCl	NH3	NO3	H2SO4	NONE	D1 Wash	MEQH	ENCORE	Shutline						
-1	LL-1(0.5-1.5)-030314		3-3-14	0805	TW	SO	3										X	X	X	X	X	
-2	LL-1(0.5-1.5)-080314			0805																		
-3	RS1-1(0.5-1.5)-030314			0825																		
-4	RS1-2(0.5-1.5)-030314			0840																		
-5	RE3-1(0.5-1.5)-030314			0900																		
-6	RES2-1(0.5-1.5)-030314			0915																		
-7	TF-1(0.5-1.5)-030314			0925																		
-8	TF-2(0.5-1.5)-030314			1105																		
-9	TF-3(0.5-1.5)-030314			1120																		
-10	AL2-9(0.5-1.5)-030314			1135																		
-11	AL2-8(0.5-1.5)-030314			1145																		
-12	CN-1(0.5-1.5)-030314		3-3-14	1200	TW	SO	3										X	X	X	X	X	
Data Deliverable Information							Comments / Special Instructions															
Turnaround Time ( Business days ) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink			Approved By (Accutest PM): / Date: _____				<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary						NYASP Category A NYASP Category B State Forms EDD Format Other  <b>14E</b>									
Sample Custody must be documented below each time samples change possession, including courier delivery.												CHICAGO BC										
Relinquished by Sampler: <b>7:20 AM</b>	Date Time: <b>3-4-14 / 15:40</b>	Received By: <i>[Signature]</i>	Date Time: <b>3/4/14 15:40</b>	Relinquished By: <b>Feoff</b>	Date Time: <b>3/5/14 9:30</b>	Received By: <i>[Signature]</i>																
Relinquished by Sampler: <b>3</b>	Date Time:	Received By: <b>3</b>	Date Time:	Relinquished By: <b>4</b>	Date Time:	Received By: <b>4</b>																
Relinquished by: <b>5</b>	Date Time:	Received By: <b>5</b>	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input type="checkbox"/>	On Ice <b>E</b>	Cooler Temp. <b>10.9°C</b>															

5.1  
5



FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC 28683</b>

Client / Reporting Information		Project Information										Requested Analysis ( see TEST CODE sheet)										Matrix Codes					
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>										<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VCS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SUCS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP/SPLP Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PH</div> </div>										D/W - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank					
Street Address <b>750 E. Bunker Ct Ste 500</b>		Billing Information ( If different from Report to)																									
City State Zip <b>Vernon Hills IL 60061</b>		Company Name																									
Project Contact <b>S. Babusukumar</b>		Street Address																									
Phone # Fax # <b>847-918-4018 -4055</b>		City State Zip																									
Sampler(s) Name(s) Phone # <b>T. Wills 847-918-4130</b>		Client POB										Attention: FCB															
Field ID / Point of Collection		Collection										Number of preserved Bottles										LAB USE ONLY					
MECH/ID/ Vial #		Date		Time		Sampled by		Matrix		# of bottles		HCl		HNO3		H2SO4		NONE		DI Water		MEDI		ENCODE		Bottle(s)	
-13 CN-2(0.5-1.5)-030314		3-3-14		1210		TW		SO		3																	
-14 CN-3(0.5-1.5)-030314				1225																							
-15 CN-3(0.5-1.5)-030314				1225																							
-16 AL3-1(0.5-1.5)-030314				1240																							
-17 AL3-3(0.5-1.5)-030314				1300																							
-18 AL3-5(0.5-1.5)-030314				1315																							
-19 AL3-7(0.5-1.5)-030314				1325																							
-20 AL3-8(0.5-1.5)-030314		3-3-14		1350		TW		SO		3																	

Turnaround Time ( Business days)		Data Deliverable Information		Comments / Special Instructions			
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>		Approved By (Accutest PM): / Date: _____ _____		<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____	

**Sample Custody must be documented below each time samples change possession, including courier delivery.**

Relinquished by Sampler: 1 <b>T. Wills</b>	Date Time: <b>3-4-14/15:40</b>	Received By: <b>[Signature]</b>	Date Time: <b>3/4/14 15:40</b>	Relinquished By: <b>[Signature]</b>	Date Time: <b>9:30 3/5/14</b>	Received By: <b>[Signature]</b>
Relinquished by Sampler: 3	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:
Relinquished by: 5	Date Time:	Received By:	Date Time:	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact	<input type="checkbox"/> On ice <input type="checkbox"/> Cooler Temp.

**MC28683: Chain of Custody**

**Page 2 of 3**

5.1 5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16608 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD dddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.339947545 Longitude: -88.521959267  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.339947545 Longitude: -88.521959267

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION TF-3 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-21. SEE FIGURE 3-4 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28683

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-21**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	TF-3(0.5-1.5)-030314	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/3/2014	
Location ID	TF-3	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Acetone	26.5	25000
Benzene	2.2	30
Ethylbenzene	1.3 J	13000
Methylene chloride	3.1	20
Toluene	4.3 J	12000
Xylene (Total)	4.5	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)anthracene	89 J	900 / 1100 / 1800
Fluoranthene	94.3 J	3100000
Pyrene	96.4 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	3.4	11.3 / 13
Barium, Total	27.7	1500
Beryllium, Total	0.18 J	22
Cadmium, Total	0.24 J	5.2
Calcium, Total	65500	---
Chromium, Total	7.1	21
Cobalt, Total	3.1 J	20
Copper, Total	12.6	2900
Iron, Total	8240	15000 / 15900
Lead, Total	63.4 J	107
Magnesium, Total	35300	325000
Manganese, Total	286 J	630 / 636
Mercury, Total	0.018 J	0.89
Nickel, Total	7.6	100
Potassium, Total	402 J	---
Sodium, Total	1770	---
Vanadium, Total	15.3	550
Zinc, Total	45.8 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.22 J	2
Cadmium, TCLP	0.0029 J	0.005
Cobalt, TCLP	0.0009 J	1
Lead, TCLP	0.013	0.0075
Manganese, TCLP	1.1	0.15
Nickel, TCLP	0.013 J	0.1
Selenium, TCLP	0.0083 J	0.05
Zinc, TCLP	0.15	5

**Summary Table of ISGS Site No. 2792-21**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	TF-3(0.5-1.5)-030314	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/3/2014	
Location ID	TF-3	
Depth	0.5 - 1.5	
Parameter		
SPLP Metals (mg/l)		
Arsenic, SPLP	0.014	0.05
Barium, SPLP	0.14 J	2
Beryllium, SPLP	0.0008 J	0.004
Cadmium, SPLP	0.0015 J	0.005
Chromium, SPLP	0.028	0.1
Cobalt, SPLP	0.0084 J	1
Copper, SPLP	0.051	0.65
Iron, SPLP	24.2 J	5
Lead, SPLP	0.31	0.0075
Manganese, SPLP	0.62	0.15
Nickel, SPLP	0.025 J	0.1
Silver, SPLP	0.0025 J	0.05
Zinc, SPLP	0.28	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28683

Sampling Date: 03/03/14

Report to:

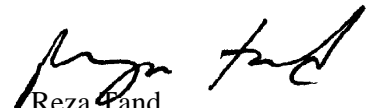
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **343**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-9	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28512.D	1	03/11/14	AMY	n/a	n/a	MSV1068
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.10 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	26.5	11	3.1	ug/kg	
71-43-2	Benzene	2.2	0.56	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.67	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	ND	5.6	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.6	0.84	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.6	0.63	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.46	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	1.3	2.2	0.77	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.84	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.6	0.60	ug/kg	
75-09-2	Methylene chloride	3.1	2.2	0.59	ug/kg	
100-42-5	Styrene	ND	5.6	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.35	ug/kg	
108-88-3	Toluene	4.3	5.6	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314		<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.64	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	4.5	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	25	ug/kg	JN
109-66-0	Pentane	2.43	17	ug/kg	JN
110-54-3	Hexane	4.28	7.5	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	5.34	4.4	ug/kg	JN
123-73-9	2-Butenal, (E)-	7.39	1.3	ug/kg	JN
142-82-5	Heptane	7.58	3.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.35	6.7	ug/kg	JN
107-84-6	Butane, 1-chloro-3-methyl-	9.82	2.3	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.55	1.4	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.98	2.1	ug/kg	JN
	Total TIC, Volatile		71.5	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	TF-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-9	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18066.D	5	03/10/14	KR	03/05/14	OP37062	MSW791
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	190	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	67	ug/kg	
56-55-3	Benzo(a)anthracene	89.0	550	71	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	550	60	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	84	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	TF-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-9	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	72	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	74	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	77	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	94.3	550	76	ug/kg	J
86-73-7	Fluorene	ND	550	74	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	87	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	89	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	84	ug/kg	
85-01-8	Phenanthrene	ND	550	75	ug/kg	
129-00-0	Pyrene	96.4	550	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	61%		30-130%
4165-62-2	Phenol-d5	61%		30-130%
118-79-6	2,4,6-Tribromophenol	78%		30-130%
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.1
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	78%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	5200	ug/kg	JN
	Total TIC, Semi-Volatile		5200	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
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# Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.4	0.88	0.18	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.7	4.4	0.064	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.18 B	0.35	0.021	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.24 B	0.35	0.037	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	65500	4400	55	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	7.1	0.88	0.084	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.1 B	4.4	0.041	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	12.6	2.2	0.49	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	8240	8.8	0.77	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	63.4	0.88	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	35300	440	4.5	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	286	1.3	0.035	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.018 B	0.035	0.0077	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	7.6	3.5	0.039	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	402 B	440	7.5	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1770	440	2.9	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.88	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.3	0.88	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	45.8	1.8	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16831
- (2) Instrument QC Batch: MA16841
- (3) Instrument QC Batch: MA16842
- (4) Prep QC Batch: MP22607
- (5) Prep QC Batch: MP22634

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.25  
 4

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.1		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.4		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.25  
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## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.22 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0029 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00090 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.013	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.1			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0083 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.15			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> TF-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-9B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.014		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.14 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00080 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0015 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.028		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0084 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.051		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	24.2		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.31		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.62		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.025 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0025 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.28		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Client / Reporting Information		Project Information				Requested Analysis ( see TEST CODE sheet)												Matrix Codes						
Company Name Woston Solutions		Project Name IDOT-048 McHenry County				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           VOCs SVOCs Total Metals TCP/SPLP Metals PH         </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank         </div> </div>												Matrix Codes LAB USE ONLY						
Street Address 750 F. Bunker Ct Ste 500		Street:																						
City State Zip Norton Hills IL 60061		Billing Information ( If different from Report to )																						
Project Contact S. Babusankumar		Company Name																						
Phone # 847-918-4018		Street Address																						
E-mail 817-918-4130		City State Zip																						
Fax # 4055		Client PO#																						
Sampler(s) Name(s) T. Wells		Project Manager Matt Maxwell				Attention: PO#																		
Accutest Sample #	Field ID / Point of Collection	MEQHD/ Val #	Collection				Number of preserved Bottles												LAB USE ONLY					
			Date	Time	Samples by	Matrix	# of bottles	HC	MPH	INDS	PCB	NONE	DI Water	MECH	ENCORE	Surfline								
-1	LL-1(0.5-1.5)-030314		3-3-14	0805	TW	SO	3												X	X	X	X	X	
-2	LL-1(0.5-1.5)-080314			0805																				
-3	RSI-1(0.5-1.5)-030314			0825																				
-4	RSI-2(0.5-1.5)-030314			0840																				
-5	RE3-1(0.5-1.5)-030314			0900																				
-6	RES2-1(0.5-1.5)-030314			0915																				
-7	TF-1(0.5-1.5)-030314			0925																				
-8	TF-2(0.5-1.5)-030314			1105																				
-9	TF-3(0.5-1.5)-030314			1120																				
-10	AL2-9(0.5-1.5)-030314			1135																				
-11	AL2-8(0.5-1.5)-030314			1145																				
-12	CN-1(0.5-1.5)-030314		3-3-14	1200		TW	SO	3												X	X	X	X	X
Data Deliverable Information												Comments / Special Instructions												
Turnaround Time ( Business days ) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink						Approved By (Accutest PM): / Date: _____						<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary						CHICAGO BC 14E						
Sample Custody must be documented below each time samples change possession, including courier delivery.																								
Relinquished by Sampler: 1 T. Wells		Date Time: 3-4-14 / 15:40		Received By: [Signature]		Date Time: 3/4/14 15:40		Relinquished By: [Signature]		Date Time: 3/5/14 9:30		Received By: 2 Will Chad												
Relinquished by Sampler: 3		Date Time: 3		Received By: 3		Date Time: 3		Relinquished By: 4		Date Time: 4		Received By: 4												
Relinquished by: 5		Date Time: 5		Received By: 5		Date Time: 5		Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Preserved where applicable <input type="checkbox"/>		On Ice <input checked="" type="checkbox"/>		Cooler Temp. 12.5°C 69.9°F								

5.1  
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FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest Job # <b>MC 28683</b>	
<b>Client / Reporting Information</b>		<b>Project Information</b>	
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>	
Street Address <b>750 E. Bunker Ct Ste 500</b>		Street:	
City State Zip <b>Vernon Hills IL 60061</b>		Billing Information (If different from Report to)	
Project Contact <b>S. Babusukumar</b>		Company Name:	
Phone # <b>847-918-4018</b>		Street Address:	
Fax # <b>-4055</b>		City State Zip:	
Sampler(s) Name(s) <b>T. Wallis</b>		Client POB <b>Matt Marvell</b>	
Phone # <b>847-918-4130</b>		Attention: FCB	
Accutest Sample #		Collection	
Field ID / Point of Collection		MECH/DI Vial #	
		Date Time Sampled by Matrix # of bottles	
		HCl HNO <sub>3</sub> H <sub>2</sub> SO <sub>4</sub> NONE DI Water MESH ENCORE Biotin	
-13 CN-2(0.5-1.5)-030314		3-3-14 1210 TW 50 3	
-14 CN-3(0.5-1.5)-030314		1225 1 1 1 3	
-15 CN-3(0.5-1.5)-030314		1225 1 1 1 3	
-16 AL3-1(0.5-1.5)-030314		1240 1 1 1 3	
-17 AL3-3(0.5-1.5)-030314		1300 1 1 1 3	
-18 AL3-5(0.5-1.5)-030314		1315 1 1 1 3	
-19 AL3-7(0.5-1.5)-030314		1325 1 1 1 3	
-20 AL3-8(0.5-1.5)-030314		3-3-14 1350 TW 50 3	
		<del>7-6-2014</del>	
<b>Turnaround Time (Business days)</b>		<b>Data Deliverable Information</b>	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>	
Approved By (Accutest PM): / Date:		Comments / Special Instructions	
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler: 1 <b>T. Wallis</b>	Date Time: <b>3-4-14/15:40</b>	Received By: <b>[Signature]</b>	Date Time: <b>3/4/14 15:46</b>
Relinquished by Sampler: 3	Date Time:	Received By:	Date Time:
Relinquished by: 5	Date Time:	Received By:	Date Time:
Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	On ice
	<input type="checkbox"/> Not intact	<input type="checkbox"/>	Cooler Temp.

5.1  
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**MC28683: Chain of Custody**

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

15000 to 16000 block of US 14 (from west of Park Lane Drive to Rose Farm Road)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.338832781 Longitude: -88.496948235

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.338832781 Longitude: -88.496948235

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS AL3-5, AL3-9, AL3-12, AL3-14, AL3-16, AND AL3-24 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-22. SEE FIGURES 3-5, 3-6, AND 3-7 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28683, MC28686, AND MC28780


**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



**Summary Table of ISGS Site No. 2792-22**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL3-5(0.5-1.5)-030314	AL3-9(0.5-1.5)-030414	AL3-12(0.5-1.5)-030714	AL3-14(0.5-1.5)-030714	AL3-16(0.5-1.5)-030714	AL3-24(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/4/2014	3/7/2014	3/7/2014	3/7/2014	3/4/2014	
Location ID	AL3-5	AL3-9	AL3-12	AL3-14	AL3-16	AL3-24	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter							
Laboratory pH	8.8	8.2	8.5	7.9	7.7	8.8	<6.25,>9.0
<b>VOCs (ug/kg)</b>							
Acetone	40.7	77.2	93.1	216	206	ND	25000
Benzene	4	0.74	1.3	0.57 J	1.7	1.4	30
Carbon disulfide	ND	1.6 J	ND	1.5 J	1.7 J	ND	9000
Ethylbenzene	3.7 J	ND	ND	ND	ND	0.7 J	13000
Methyl ethyl ketone	ND	ND	ND	31.6	ND	ND	17000
Methylene chloride	3.9 J	1.2 J	ND	ND	ND	1.5 J	20
Toluene	10.7 J	0.67 J	2.4 J	0.48 J	2.3 J	2.1 J	12000
Xylene (Total)	13.5	0.49 J	1.3 J	ND	0.69 J	2	5600
<b>SVOCs (ug/kg)</b>							
Benzo(a)anthracene	ND	ND	ND	ND	ND	121 J	900 / 1100 / 1800
Benzo(a)pyrene	ND	ND	ND	ND	ND	134 J	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	141 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	ND	274 J	ND	ND	ND	2300000
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	96.8 J	9000
bis(2-Ethylhexyl)phthalate	ND	ND	ND	ND	27.3 J	104 J	46000
Butyl benzyl phthalate	ND	ND	ND	ND	ND	254 J	930000
Chrysene	ND	ND	ND	ND	ND	139 J	88000
Fluoranthene	110 J	ND	ND	ND	ND	266 J	3100000
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	82.8 J	900 / 900 / 1600
Phenanthrene	ND	ND	ND	ND	16.8 J	97.2 J	210000
Pyrene	100 J	ND	ND	ND	ND	204 J	2300000
<b>Total Metals (mg/kg)</b>							
Antimony, Total	0.14 J	ND	ND	ND	ND	ND	5
Arsenic, Total	2.7	6.9	6.3	7.4	6.6	2.6	11.3 / 13
Barium, Total	30.6	132	69.5	127	87.8	16.2	1500
Beryllium, Total	0.094 J	0.61	0.44	0.65	0.54	0.096 J	22
Cadmium, Total	ND	0.16 J	0.054 J	0.098 J	0.074 J	0.096 J	5.2
Calcium, Total	135000	12800	11500	4740	20500	126000	---
Chromium, Total	10.4	16.2 J	13.3	18.1	16.3	13.4 J	21
Cobalt, Total	2.5 J	10.1	6.2	9	7.9	2.9 J	20
Copper, Total	10.3	15.8	16.1	16.3	14	14.9	2900
Iron, Total	7610	17500	15300	18800	17100	7150 J	15000 / 15900
Lead, Total	14.2	19.4	9.3	14.9	13.6	29.2	107
Magnesium, Total	71000	9180	6070	4040	9380	63900	325000
Manganese, Total	310	537 J	299	383	255	257 J	630 / 636
Mercury, Total	ND	0.028 J	0.03 J	0.046	0.033 J	ND	0.89
Nickel, Total	7.8	16.5	17.2	19.5	17.6	9.5	100
Potassium, Total	432 J	923	812	1100	888	445	---
Selenium, Total	ND	ND	ND	0.46 J	0.53 J	ND	1.3
Silver, Total	0.25 J	ND	0.18 J	0.23 J	0.13 J	0.17 J	4.4
Sodium, Total	1870	3050	2880	2060	1010	1410	---
Thallium, Total	0.33 J	0.21 J	0.29 J	0.28 J	0.35 J	0.27 J	2.6
Vanadium, Total	19.8	34	25.8	34.8	33.7	17.8 J	550
Zinc, Total	36.2	56.6 J	37.6	51.6	43.7	59.3 J	5100

**Summary Table of ISGS Site No. 2792-22**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL3-5(0.5-1.5)-030314	AL3-9(0.5-1.5)-030414	AL3-12(0.5-1.5)-030714	AL3-14(0.5-1.5)-030714	AL3-16(0.5-1.5)-030714	AL3-24(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/4/2014	3/7/2014	3/7/2014	3/7/2014	3/4/2014	
Location ID	AL3-5	AL3-9	AL3-12	AL3-14	AL3-16	AL3-24	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter							
<b>TCPL Metals (mg/l)</b>							
Arsenic, TCLP	ND	0.0076 J	0.0086 J	0.01	0.0098 J	ND	0.05
Barium, TCLP	0.57	1.4	1.1	1.1	1.2	0.17 J	2
Beryllium, TCLP	ND	0.0004 J	ND	0.0006 J	0.0003 J	ND	0.004
Cadmium, TCLP	0.0009 J	0.0015 J	0.0016 J	0.0013 J	0.0015 J	0.0017 J	0.005
Chromium, TCLP	0.0049 J	ND	ND	ND	ND	0.0028 J	0.1
Cobalt, TCLP	0.0063 J	0.049 J	0.021 J	0.042 J	0.048 J	0.012 J	1
Copper, TCLP	ND	0.0078 J	0.011 J	0.016 J	0.011 J	0.0098 J	0.65
Iron, TCLP	ND	3.1	0.27	5	2.2	ND	5
Lead, TCLP	ND	0.0099 J	0.01	0.0087 J	0.0088 J	0.0098 J	0.0075
Manganese, TCLP	1.4	11.7	7.9	9.2	8.3	1.4	0.15
Nickel, TCLP	0.012 J	0.031 J	0.019 J	0.037 J	0.045	0.013 J	0.1
Selenium, TCLP	0.0099 J	0.0086 J	0.0056 J	ND	ND	0.0093 J	0.05
Zinc, TCLP	0.052 J	0.11	0.059 J	0.054 J	0.065 J	0.21	5
<b>SPLP Metals (mg/l)</b>							
Arsenic, SPLP	0.0097 J	0.067	0.04	0.09	0.057	ND	0.05
Barium, SPLP	0.14 J	1.4 J	0.73	1.5	1	0.076 J	2
Beryllium, SPLP	0.0004 J	0.0063	0.0038 J	0.0079	0.0059	ND	0.004
Cadmium, SPLP	0.0006 J	0.0005 J	0.0008 J	0.0013 J	0.001 J	ND	0.005
Chromium, SPLP	0.024	0.13 J	0.1	0.2	0.16	0.016 J	0.1
Cobalt, SPLP	0.0042 J	0.062	0.035 J	0.07	0.05	0.0026 J	1
Copper, SPLP	0.028	0.17 J	0.11	0.21	0.11	0.02 J	0.65
Iron, SPLP	14 J	146	104	215	144	4.8	5
Lead, SPLP	0.1	0.21	0.21	0.16	0.12	0.069	0.0075
Manganese, SPLP	0.28	3.7	1.5	3.2	2	0.1	0.15
Mercury, SPLP	ND	0.00041	0.00015 J	0.00052	0.00013 J	ND	0.002
Nickel, SPLP	0.014 J	0.13	0.094	0.18	0.14	0.0061 J	0.1
Selenium, SPLP	ND	0.0081 J	ND	ND	0.0049 J	ND	0.05
Silver, SPLP	0.0014 J	ND	ND	ND	ND	ND	0.05
Zinc, SPLP	0.12	0.49	0.35 J	0.55 J	0.37 J	0.11	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28683

Sampling Date: 03/03/14

Report to:

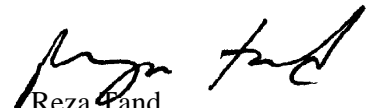
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **343**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-18	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 84.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28502.D	1	03/10/14	AMY	n/a	n/a	MSV1067
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	2.74 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	40.7	22	6.1	ug/kg	
71-43-2	Benzene	4.0	1.1	0.73	ug/kg	
75-27-4	Bromodichloromethane	ND	4.3	0.45	ug/kg	
75-25-2	Bromoform	ND	4.3	0.77	ug/kg	
74-83-9	Bromomethane	ND	4.3	1.3	ug/kg	
78-93-3	2-Butanone (MEK)	ND	22	6.7	ug/kg	
75-15-0	Carbon disulfide	ND	11	0.28	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.3	0.48	ug/kg	
108-90-7	Chlorobenzene	ND	4.3	0.34	ug/kg	
75-00-3	Chloroethane	ND	11	1.6	ug/kg	
67-66-3	Chloroform	ND	4.3	0.37	ug/kg	
74-87-3	Chloromethane	ND	11	1.2	ug/kg	
124-48-1	Dibromochloromethane	ND	4.3	0.70	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.3	0.58	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.3	0.70	ug/kg	
75-35-4	1,1-Dichloroethene	ND	4.3	0.90	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	4.3	0.98	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	4.3	0.91	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	4.3	0.91	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.3	0.91	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.3	0.49	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.3	0.57	ug/kg	
100-41-4	Ethylbenzene	3.7	4.3	1.5	ug/kg	J
591-78-6	2-Hexanone	ND	22	1.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	4.3	0.40	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	11	1.2	ug/kg	
75-09-2	Methylene chloride	3.9	4.3	1.2	ug/kg	J
100-42-5	Styrene	ND	11	0.37	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.3	0.85	ug/kg	
127-18-4	Tetrachloroethene	ND	4.3	0.68	ug/kg	
108-88-3	Toluene	10.7	11	0.45	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	4.3	0.47	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-18	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 84.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	4.3	1.2	ug/kg	
79-01-6	Trichloroethene	ND	4.3	0.53	ug/kg	
75-01-4	Vinyl chloride	ND	4.3	2.0	ug/kg	
1330-20-7	Xylene (total)	13.5	4.3	0.48	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	111%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	53	ug/kg	JN
109-66-0	Pentane	2.43	31	ug/kg	JN
110-54-3	Hexane	4.27	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.34	7.6	ug/kg	JN
142-82-5	Heptane	7.57	7.9	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.35	15	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.55	6.8	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.64	4	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.97	9.8	ug/kg	JN
	Total TIC, Volatile		149.1	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.52  
4



# Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-18	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 84.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18057.D	5	03/10/14	KR	03/05/14	OP37062	MSW791
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1500	67	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	3000	75	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	3000	85	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	3000	480	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5900	740	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	3000	370	ug/kg	
95-48-7	2-Methylphenol	ND	3000	120	ug/kg	
106-44-5	4-Methylphenol	ND	3000	150	ug/kg	
88-75-5	2-Nitrophenol	ND	3000	79	ug/kg	
100-02-7	4-Nitrophenol	ND	5900	550	ug/kg	
87-86-5	Pentachlorophenol	ND	3000	210	ug/kg	
108-95-2	Phenol	ND	1500	84	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	3000	74	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	3000	73	ug/kg	
83-32-9	Acenaphthene	ND	590	79	ug/kg	
208-96-8	Acenaphthylene	ND	590	59	ug/kg	
120-12-7	Anthracene	ND	590	71	ug/kg	
56-55-3	Benzo(a)anthracene	ND	590	76	ug/kg	
50-32-8	Benzo(a)pyrene	ND	590	64	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	590	74	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	590	59	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	590	89	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1500	75	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	60	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	80	ug/kg	
106-47-8	4-Chloroaniline	ND	3000	74	ug/kg	
86-74-8	Carbazole	ND	590	70	ug/kg	
218-01-9	Chrysene	ND	590	74	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	69	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	90	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	110	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1500	91	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.52  
**4**

# Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-18	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 84.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1500	77	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1500	85	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1500	79	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	3000	200	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	3000	74	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1500	150	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	590	71	ug/kg	
132-64-9	Dibenzofuran	ND	590	82	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	160	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	46	ug/kg	
84-66-2	Diethyl phthalate	ND	1500	74	ug/kg	
131-11-3	Dimethyl phthalate	ND	1500	86	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	55	ug/kg	
206-44-0	Fluoranthene	110	590	81	ug/kg	J
86-73-7	Fluorene	ND	590	79	ug/kg	
118-74-1	Hexachlorobenzene	ND	1500	93	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	86	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	3000	740	ug/kg	
67-72-1	Hexachloroethane	ND	1500	71	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	590	65	ug/kg	
78-59-1	Isophorone	ND	1500	68	ug/kg	
91-57-6	2-Methylnaphthalene	ND	590	75	ug/kg	
88-74-4	2-Nitroaniline	ND	3000	74	ug/kg	
99-09-2	3-Nitroaniline	ND	3000	160	ug/kg	
100-01-6	4-Nitroaniline	ND	3000	74	ug/kg	
91-20-3	Naphthalene	ND	590	95	ug/kg	
98-95-3	Nitrobenzene	ND	1500	80	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	85	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	89	ug/kg	
85-01-8	Phenanthrene	ND	590	80	ug/kg	
129-00-0	Pyrene	100	590	69	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1500	82	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	76%		30-130%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-18 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 84.2
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	79%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-18	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 B	0.94	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	2.7	0.94	0.19	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	30.6	4.7	0.068	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.094 B	0.37	0.022	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.040 U	0.37	0.040	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	135000	4700	59	mg/kg	10	03/06/14	03/11/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	10.4	0.94	0.089	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	2.5 B	4.7	0.044	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	10.3	2.3	0.52	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	7610	9.4	0.81	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	14.2	0.94	0.16	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	71000	470	4.8	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	310	1.4	0.037	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0079 U	0.036	0.0079	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	7.8	3.7	0.041	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	432 B	470	8.0	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.94	0.32	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.25 B	0.47	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1870	470	3.1	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.33 B	0.94	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	19.8	0.94	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	36.2	1.9	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22608
- (5) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-18 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 84.2
---	--

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.2		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.8		su	1	03/06/14	MA	SW846 9045D

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-18A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.57	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0049 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0063 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.012 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0099 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.052 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL3-5(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-18B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 84.2
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0097 B		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.14 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00040 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.024		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0042 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.028		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	14.0		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.10		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.28		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.014 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0014 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.12		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC 28683</b>

Client / Reporting Information		Project Information										Requested Analysis ( see TEST CODE sheet)										Matrix Codes		
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>										<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VCS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SUCS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP/SPLP Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PH</div> </div>										D/W - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank		
Street Address <b>750 E. Bunker Ct Ste 500</b>		Billing Information ( If different from Report to)																						
City State Zip <b>Vernon Hills IL 60061</b>		Company Name																						
Project Contact <b>S. Babusukumar</b>		Street Address																						
Phone # Fax # <b>847-918-4018 -4055</b>		City State Zip																						
Sampler(s) Name(s) Phone # <b>T. Wills 847-918-4130</b>		Client POB										Attention: FCB												
Accutest Sample #		Field ID / Point of Collection		MECH/ID Vial #		Collection		Sampled by		Matrix		# of bottles		Number of preserved Bottles										LAB USE ONLY
						Date Time								<input type="checkbox"/> HCl <input type="checkbox"/> HNOH <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NONE <input type="checkbox"/> DI Water <input type="checkbox"/> MESH <input type="checkbox"/> ENCORE <input type="checkbox"/> Biotin										
-13		CN-2(0.5-1.5)-030314				3-3-14 1210		TW 50		3		3		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>										
-14		CN-3(0.5-1.5)-030314				1225																		
-15		CN-3(0.5-1.5)-030314				1225																		
-16		AL3-1(0.5-1.5)-030314				1240																		
-17		AL3-3(0.5-1.5)-030314				1300																		
-18		AL3-5(0.5-1.5)-030314				1315																		
-19		AL3-7(0.5-1.5)-030314				1325																		
-20		AL3-8(0.5-1.5)-030314				3-3-14 1350		TW 50		3		3		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>										

Turnaround Time ( Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information										Comments / Special Instructions
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink				<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other Commercial "A" = Results Only Commercial "B" = Results + QC Summary										

Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by Sampler:		Date Time:		Received By:		Date Time:	
1 <b>T. Wills</b>		3-4-14/15:40		<b>[Signature]</b>		3/4/14 15:40	
Relinquished by Sampler:		Date Time:		Received By:		Date Time:	
3				4		9:30 3/5/14	
Relinquished by:		Date Time:		Received By:		Date Time:	
5				5			
Custody Seal #				<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> On ice <input type="checkbox"/> Cooler Temp. <input type="checkbox"/> Not intact <input type="checkbox"/>			

**MC28683: Chain of Custody**

Page 2 of 3

5.1 5

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28686

Sampling Dates: 03/03/14 - 03/04/14

Report to:

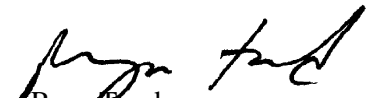
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **316**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> AL3-24(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28686-8	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63715.D	1	03/11/14	KD	n/a	n/a	MSM2234

Run #1	Initial Weight	Final Volume
Run #2	6.25 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.1	2.6	ug/kg	
71-43-2	Benzene	1.4	0.46	0.31	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.19	ug/kg	
75-25-2	Bromoform	ND	1.8	0.32	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.55	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.1	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	4.6	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.14	ug/kg	
75-00-3	Chloroethane	ND	4.6	0.69	ug/kg	
67-66-3	Chloroform	ND	1.8	0.15	ug/kg	
74-87-3	Chloromethane	ND	4.6	0.52	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.38	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.41	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.38	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.24	ug/kg	
100-41-4	Ethylbenzene	0.70	1.8	0.63	ug/kg	J
591-78-6	2-Hexanone	ND	9.1	0.69	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.6	0.49	ug/kg	
75-09-2	Methylene chloride	1.5	1.8	0.49	ug/kg	J
100-42-5	Styrene	ND	4.6	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.36	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.29	ug/kg	
108-88-3	Toluene	2.1	4.6	0.19	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.20	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> AL3-24(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.52	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.83	ug/kg	
1330-20-7	Xylene (total)	2.0	1.8	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	114%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.09	11	ug/kg	JN
109-66-0	Pentane	6.48	13	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.84	6.9	ug/kg	JN
	Total TIC, Volatile		30.9	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	AL3-24(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-8	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71710.D	5	03/11/14	KR	03/05/14	OP37064	MSF3193
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	64	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	72	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	82	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5700	710	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	360	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	150	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	76	ug/kg	
100-02-7	4-Nitrophenol	ND	5700	530	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	81	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	71	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	70	ug/kg	
83-32-9	Acenaphthene	ND	570	76	ug/kg	
208-96-8	Acenaphthylene	ND	570	57	ug/kg	
120-12-7	Anthracene	ND	570	69	ug/kg	
56-55-3	Benzo(a)anthracene	121	570	73	ug/kg	J
50-32-8	Benzo(a)pyrene	134	570	61	ug/kg	J
205-99-2	Benzo(b)fluoranthene	141	570	71	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	570	57	ug/kg	
207-08-9	Benzo(k)fluoranthene	96.8	570	86	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	1400	72	ug/kg	
85-68-7	Butyl benzyl phthalate	254	1400	58	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	1400	77	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	71	ug/kg	
86-74-8	Carbazole	ND	570	67	ug/kg	
218-01-9	Chrysene	139	570	71	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	67	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	87	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	87	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL3-24(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-8	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	74	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	82	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	76	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	71	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	570	68	ug/kg	
132-64-9	Dibenzofuran	ND	570	79	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	71	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	82	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	104	1400	53	ug/kg	J
206-44-0	Fluoranthene	266	570	78	ug/kg	J
86-73-7	Fluorene	ND	570	76	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	89	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	82	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	710	ug/kg	
67-72-1	Hexachloroethane	ND	1400	69	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	82.8	570	63	ug/kg	J
78-59-1	Isophorone	ND	1400	66	ug/kg	
91-57-6	2-Methylnaphthalene	ND	570	72	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	71	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	160	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	71	ug/kg	
91-20-3	Naphthalene	ND	570	91	ug/kg	
98-95-3	Nitrobenzene	ND	1400	77	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	81	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	86	ug/kg	
85-01-8	Phenanthrene	97.2	570	77	ug/kg	J
129-00-0	Pyrene	204	570	67	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	79	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	60%		30-130%
118-79-6	2,4,6-Tribromophenol	60%		30-130%
4165-60-0	Nitrobenzene-d5	54%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-24(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 87.5
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	67%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.62	5200	ug/kg	JN
	Total TIC, Semi-Volatile		5200	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL3-24(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	2.6	0.87	0.18	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	16.2	4.4	0.063	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.096 B	0.35	0.021	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.096 B	0.35	0.037	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	126000	4400	55	mg/kg	10	03/07/14	03/11/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	13.4	0.87	0.083	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	2.9 B	4.4	0.041	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.9	2.2	0.48	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	7150	8.7	0.76	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	29.2	0.87	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	63900	440	4.5	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	257	1.3	0.035	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0076 U	0.035	0.0076	mg/kg	1	03/11/14	03/12/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	9.5	3.5	0.038	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	445	440	7.5	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.17 B	0.44	0.11	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1410	440	2.9	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.27 B	0.87	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.8	0.87	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	59.3	1.7	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16844
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22609
- (5) Prep QC Batch: MP22636

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL3-24(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.5		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.8		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL3-24(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-8A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.17 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0028 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.012 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0098 B			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0098 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0093 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.21			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-24(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-8B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U		0.010	0.0029	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.076 B		0.50	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00025 U		0.0040	0.00025	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.016		0.010	0.0014	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0026 B		0.050	0.00040	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.020 B		0.025	0.0070	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Iron	4.8		0.10	0.020	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.069		0.010	0.0017	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.10		0.015	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.0061 B		0.040	0.00057	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.11		0.10	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b>	AL3-9(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-16	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	83.9
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63723.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.11 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	77.2	12	3.3	ug/kg	
71-43-2	Benzene	0.74	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	1.6	5.8	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.80	ug/kg	
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.63	ug/kg	
75-09-2	Methylene chloride	1.2	2.3	0.62	ug/kg	J
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.37	ug/kg	
108-88-3	Toluene	0.67	5.8	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-9(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	0.49	2.3	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.46  
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## Report of Analysis

<b>Client Sample ID:</b> AL3-9(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28686-16	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 83.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71737.D	1	03/11/14	KR	03/05/14	OP37064	MSF3194
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	97	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	74	ug/kg	
95-48-7	2-Methylphenol	ND	590	24	ug/kg	
106-44-5	4-Methylphenol	ND	590	30	ug/kg	
88-75-5	2-Nitrophenol	ND	590	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	590	42	ug/kg	
108-95-2	Phenol	ND	300	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	15	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	16	ug/kg	
106-47-8	4-Chloroaniline	ND	590	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	18	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL3-9(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-16	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	83.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	40	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	30	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	300	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	9.3	ug/kg	
84-66-2	Diethyl phthalate	ND	300	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	300	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	300	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	590	15	ug/kg	
99-09-2	3-Nitroaniline	ND	590	32	ug/kg	
100-01-6	4-Nitroaniline	ND	590	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	300	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	59%		30-130%
118-79-6	2,4,6-Tribromophenol	69%		30-130%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-9(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-16 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 83.9
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	67%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.61	5300	ug/kg	JN
	Total TIC, Semi-Volatile		5300	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL3-9(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.9	0.95	0.20	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	132	4.8	0.069	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.61	0.38	0.023	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.16 B	0.38	0.040	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	12800	480	6.0	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	16.2	0.95	0.091	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	10.1	4.8	0.045	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	15.8	2.4	0.53	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	17500	9.5	0.83	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	19.4	0.95	0.16	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	9180	480	4.9	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	537	1.4	0.038	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.028 B	0.038	0.0085	mg/kg	1	03/13/14	03/13/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	16.5	3.8	0.042	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	923	480	8.2	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 U	0.95	0.33	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.48	0.12	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	3050	480	3.2	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.21 B	0.95	0.13	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	34.0	0.95	0.13	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	56.6	1.9	0.15	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16855
- (3) Prep QC Batch: MP22610
- (4) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-9(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	83.9		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.2		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL3-9(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-16A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 83.9
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0076 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	1.4	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00040 B			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.049 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0078 B			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	3.1			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0099 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	11.7			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.031 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0086 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.11			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL3-9(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-16B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.067		0.010	0.0029	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.4		0.50	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0063		0.0040	0.00025	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.062		0.050	0.00040	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Iron	146		0.10	0.020	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.21		0.010	0.0017	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.7		0.015	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00041		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.13		0.040	0.00057	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0081 B		0.025	0.0048	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.49		0.10	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <i>MC28686</i>

Client / Reporting Information		Project Information				Requested Analysis (see TEST CODE sheet)														Matrix Codes					
Company Name <i>Weston Solutions</i>		Project Name <i>IDOT - 048 McHenry County</i>																		D1V - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank					
Street Address <i>750 E. Bunker Ct Ste 500</i>		Street		Billing Information (if different from Report to)																					
City <i>Norwich Hills IL</i>		City		Company Name																					
Project Contact <i>S. Baburikumar</i>		Project#		Street Address																					
Phone # <i>847-918-4018</i>		Fax # <i>-4055</i>		Client POB																					
Sampler(s) Name(s) <i>T. Walsh</i>		Phone # <i>847-918-4130</i>		Project Manager <i>Matt Maxwell</i>																					
Accutest Sample # <i>MC28686</i>	Field ID / Point of Collection	MEO/HDI/Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles														LAB USE ONLY			
			Date	Time	Sampled by			H2O	NADH	NHCO	PERO4	NONO	DI Water	MECH	ENCORE	Blankline	VXS	SNOCS	Total Metals	TCLP/SPLP metals	pH				
-1	RE4-1(0.5-1.5)-030314		3-3-14	1405	TW	SO	3													X	X	X	X	X	
-2	RE4-2(0.5-1.5)-030314			1415																X	X	X	X	X	
-3	VL5-1(0.5-1.5)-030314			1425																X	X	X	X	X	
-4	RE7-1(0.5-1.5)-030314			1435																X	X	X	X	X	
-5	RE7-2(0.5-1.5)-030314			1455																X	X	X	X	X	
-6	RE7-2(0.5-1.5)-030314D		3-3-14	1455																X	X	X	X	X	
-7	AL3-22(0.5-1.5)-030414		3-4-14	0755																X	X	X	X	X	
-8	AL3-24(0.5-1.5)-030414			0805																X	X	X	X	X	
-9	AL3-26(0.5-1.5)-030414			0820																X	X	X	X	X	
-10	AL3-27(0.5-1.5)-030414			0835																X	X	X	X	X	
-11	VL6-1(0.5-1.5)-030414			0905																X	X	X	X	X	
-12	VL6-2(0.5-1.5)-030414		3-4-14	0915		TW	SO	3												X	X	X	X	X	

*VXS*  
*SNOCS*  
*Total Metals*  
*TCLP/SPLP metals*  
*pH*

Comments / Special Instructions  
*loc 14E, 6F1*

Turnaround Time (Business days)	Approved By (Accutest PM) / Date:	Commercial "A" (Level 1)	NYASP Category A
<input checked="" type="checkbox"/> Std. 10 Business Days		Commercial "B" (Level 2)	NYASP Category B
<input type="checkbox"/> Std. 5 Business Days (By Contract only)		FULLT1 (Level 3+4)	State Forms
<input type="checkbox"/> 5 Day RUSH		CT RCP	EDD Format
<input type="checkbox"/> 3 Day EMERGENCY		MA MCP	Other _____
<input type="checkbox"/> 2 Day EMERGENCY		Commercial "A" = Results Only	
<input type="checkbox"/> 1 Day EMERGENCY		Commercial "B" = Results + QC Summary	

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
<i>7 Walsh</i>	<i>3-4-14/1510</i>	<i>[Signature]</i>	<i>Feltz</i>	<i>3/5/14 930</i>	<i>Willcher</i>
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	On Ice	
5		5		Cooler Temp.	

5.1  
5

Client / Reporting Information Company Name: <b>Weston Solutions</b> Street Address: <b>750 E. Buncker Ct Ste 500</b> City: <b>Newton Hills IL</b> State: <b>IL</b> Zip: <b>60061</b> Project Contact: <b>S. Babusankumar</b> E-mail: _____ Phone #: <b>847-918-4018</b> Fax #: <b>-4055</b> Sampler(s) Name(s): <b>T. W. Hs</b> Phone #: <b>847-918-4130</b>		Project Information Project Name: <b>IDOT-048 McHenry County</b> Street: _____ Billing Information (if different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Client PO#: _____ Project Manager: <b>Matt Morvelli</b> Attention: _____ PO#: _____		Requested Analysis (see TEST CODE sheet) VDC's SVOC's Total Metals TCLP/SLP Methods PH										Matrix Codes DW - Drinking Water GW - Ground Water WW - Waste SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank								
Accutest Job #: <b>MC28686</b>		Matrix Codes																				
LAB USE ONLY		LAB USE ONLY																				
Acctest Sample #	Field ID / Point of Collection	MECHDI Viol #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NH <sub>4</sub> H	NH <sub>3</sub>	PHOS	HEXO	NONE	D/W/MT	MEOH	ENCORE	Bioslave	LAB USE ONLY				
13	VL6-3(0.5-1.5)-030414		3-4-14	0925	TW	SO	3						3					X	X	X	X	X
14	RS2-1(0.5-1.5)-030414			0935																		
15	RS3-1(0.5-1.5)-030414			0945																		
16	AL3-9(0.5-1.5)-030414			1020																		
17	AL3-11(0.5-1.5)-030414			1035																		
18	AL3-11(0.5-1.5)-030414D			1035																		
19	HV-1(0.5-1.5)-030414			1050																		
20	VL7-1(0.5-1.5)-030414		3-4-14	1105	TW	SO	3						3					X	X	X	X	X
Data Deliverable Information Turnaround Time (Business days): <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary																						
Sample Custody must be documented below each time samples change possession, including courier delivery.																		<b>CHICAGO SC</b>				
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:																	
1 <i>T. W. Hs</i>	3-4-14/15:10	1 <i>[Signature]</i>	2 <i>ROA</i>	9:30	2 <i>will del</i>																	
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:																	
3		3	4		4																	
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	<input type="checkbox"/> On Ice	Cooler Temp.															
5		5		<input type="checkbox"/> Not intact	<input type="checkbox"/>	<input type="checkbox"/>																

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Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28780

Sampling Date: 03/07/14

Report to:

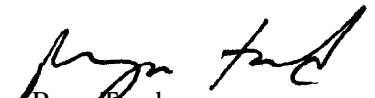
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **171**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> AL3-12(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-4	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63902.D	1	03/19/14	KD	n/a	n/a	MSM2241
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.18 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	93.1	11	3.0	ug/kg	
71-43-2	Benzene	1.3	0.53	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.3	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.80	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.44	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.44	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.73	ug/kg	
591-78-6	2-Hexanone	ND	11	0.80	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.3	0.57	ug/kg	
75-09-2	Methylene chloride	2.7	2.1	0.56	ug/kg	B
100-42-5	Styrene	ND	5.3	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	2.4	5.3	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL3-12(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-4	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.97	ug/kg	
1330-20-7	Xylene (total)	1.3	2.1	0.23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	38	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	19	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.83	9.9	ug/kg	JN
110-54-3	Hexane	8.46	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.3	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.3	ug/kg	JN
	Total TIC, Volatile		96.2	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL3-12(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-4	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37460.D	5	03/13/14	KR	03/10/14	OP37118	MSR1383
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	60	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	68	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	670	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	72	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	67	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	66	ug/kg	
83-32-9	Acenaphthene	ND	540	72	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	ND	540	69	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	58	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	540	67	ug/kg	
191-24-2	Benzo(g,h,i)perylene	274	540	53	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	540	81	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	68	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	73	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	67	ug/kg	
86-74-8	Carbazole	ND	540	63	ug/kg	
218-01-9	Chrysene	ND	540	67	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	63	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	82	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	96	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	82	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL3-12(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-4	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	77	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	67	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	64	ug/kg	
132-64-9	Dibenzofuran	ND	540	74	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	67	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	77	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	50	ug/kg	
206-44-0	Fluoranthene	ND	540	73	ug/kg	
86-73-7	Fluorene	ND	540	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	84	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	670	ug/kg	
67-72-1	Hexachloroethane	ND	1300	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	59	ug/kg	
78-59-1	Isophorone	ND	1300	62	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	68	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	67	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	67	ug/kg	
91-20-3	Naphthalene	ND	540	86	ug/kg	
98-95-3	Nitrobenzene	ND	1300	72	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	81	ug/kg	
85-01-8	Phenanthrene	ND	540	73	ug/kg	
129-00-0	Pyrene	ND	540	63	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	74	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	82%		30-130%
4165-62-2	Phenol-d5	81%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	81%		30-130%
321-60-8	2-Fluorobiphenyl	88%		30-130%

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-12(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-4	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	98%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.66	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL3-12(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-4	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.3	0.90	0.19	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	69.5	4.5	0.065	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.44	0.36	0.021	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.054 B	0.36	0.038	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	11500	450	5.7	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	13.3	0.90	0.086	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.2	4.5	0.042	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	16.1	2.3	0.50	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	15300	9.0	0.78	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	9.3	0.90	0.15	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	6070	450	4.6	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	299	1.4	0.036	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.030 B	0.034	0.0074	mg/kg	1	03/19/14	03/19/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	17.2	3.6	0.040	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	812	450	7.7	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.18 B	0.45	0.11	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2880	450	3.0	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.29 B	0.90	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	25.8	0.90	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	37.6	1.8	0.15	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16890
- (3) Prep QC Batch: MP22658
- (4) Prep QC Batch: MP22697

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-12(0.5-1.5)-030714 <b>Lab Sample ID:</b> MC28780-4 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/07/14 <b>Date Received:</b> 03/08/14 <b>Percent Solids:</b> 90.9
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.9		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.5		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL3-12(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-4A	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0086 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	1.1	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0016 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.021 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.27			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.010	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	7.9			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.019 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0056 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.059 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.11  
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## Report of Analysis

<b>Client Sample ID:</b> AL3-12(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-4B	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.040		0.010	0.0029	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.73		0.50	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0038 B		0.0040	0.00025	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.10		0.010	0.0014	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.035 B		0.050	0.00040	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Iron	104		0.10	0.020	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.21		0.010	0.0017	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.5		0.015	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00015 B		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.094		0.040	0.00057	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.35		0.10	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL



# Report of Analysis

<b>Client Sample ID:</b> AL3-14(0.5-1.5)-030714	
<b>Lab Sample ID:</b> MC28780-5	<b>Date Sampled:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/08/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 83.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63903.D	1	03/19/14	KD	n/a	n/a	MSM2241
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.32 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	216	14	3.9	ug/kg	
71-43-2	Benzene	0.57	0.69	0.47	ug/kg	J
75-27-4	Bromodichloromethane	ND	2.8	0.29	ug/kg	
75-25-2	Bromoform	ND	2.8	0.49	ug/kg	
74-83-9	Bromomethane	ND	2.8	0.83	ug/kg	
78-93-3	2-Butanone (MEK)	31.6	14	4.2	ug/kg	
75-15-0	Carbon disulfide	1.5	6.9	0.18	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.8	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.8	0.22	ug/kg	
75-00-3	Chloroethane	ND	6.9	1.0	ug/kg	
67-66-3	Chloroform	ND	2.8	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.9	0.78	ug/kg	
124-48-1	Dibromochloromethane	ND	2.8	0.45	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.8	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.8	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.8	0.57	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.8	0.62	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.8	0.58	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.8	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.8	0.58	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.8	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	0.36	ug/kg	
100-41-4	Ethylbenzene	ND	2.8	0.95	ug/kg	
591-78-6	2-Hexanone	ND	14	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.8	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.9	0.75	ug/kg	
75-09-2	Methylene chloride	3.6	2.8	0.73	ug/kg	B
100-42-5	Styrene	ND	6.9	0.24	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.8	0.54	ug/kg	
127-18-4	Tetrachloroethene	ND	2.8	0.43	ug/kg	
108-88-3	Toluene	0.48	6.9	0.28	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.8	0.30	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.13  
**4**

## Report of Analysis

<b>Client Sample ID:</b> AL3-14(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-5	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.8	0.79	ug/kg	
79-01-6	Trichloroethene	ND	2.8	0.34	ug/kg	
75-01-4	Vinyl chloride	ND	2.8	1.3	ug/kg	
1330-20-7	Xylene (total)	ND	2.8	0.30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-07-0	Acetaldehyde	4.93	8.2	ug/kg	JN
	Total TIC, Volatile		8.2	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.13  
4

## Report of Analysis

<b>Client Sample ID:</b> AL3-14(0.5-1.5)-030714	
<b>Lab Sample ID:</b> MC28780-5	<b>Date Sampled:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/08/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 83.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37461.D	1	03/13/14	KR	03/10/14	OP37118	MSR1383
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	96	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	74	ug/kg	
95-48-7	2-Methylphenol	ND	590	23	ug/kg	
106-44-5	4-Methylphenol	ND	590	30	ug/kg	
88-75-5	2-Nitrophenol	ND	590	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	590	42	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	15	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	590	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL3-14(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-5	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	83.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.2	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	590	15	ug/kg	
99-09-2	3-Nitroaniline	ND	590	32	ug/kg	
100-01-6	4-Nitroaniline	ND	590	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-14(0.5-1.5)-030714 <b>Lab Sample ID:</b> MC28780-5 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/07/14 <b>Date Received:</b> 03/08/14 <b>Percent Solids:</b> 83.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.66	4700	ug/kg	JN
	Total TIC, Semi-Volatile		4700	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.13  
4

# Report of Analysis

<b>Client Sample ID:</b> AL3-14(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-5	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.15 U	0.98	0.15	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.4	0.98	0.20	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	127	4.9	0.071	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.65	0.39	0.023	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.098 B	0.39	0.041	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	4740	490	6.2	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	18.1	0.98	0.093	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	9.0	4.9	0.046	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	16.3	2.5	0.54	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	18800	9.8	0.85	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	14.9	0.98	0.16	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	4040	490	5.0	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	383	1.5	0.039	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.046	0.036	0.0079	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	19.5	3.9	0.043	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	1100	490	8.4	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.46 B	0.98	0.34	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.23 B	0.49	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2060	490	3.2	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.28 B	0.98	0.13	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	34.8	0.98	0.13	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	51.6	2.0	0.16	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16890
- (3) Prep QC Batch: MP22658
- (4) Prep QC Batch: MP22697

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-14(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-5	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	83.6		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	7.9		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.13  
4

# Report of Analysis

<b>Client Sample ID:</b> AL3-14(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-5A	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.010	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	1.1	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00060 B			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.042 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.016 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	5.0			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0087 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	9.2			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.037 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.054 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

4.14  
4



## Report of Analysis

<b>Client Sample ID:</b> AL3-14(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-5B	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.090		0.010	0.0029	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.5		0.50	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0079		0.0040	0.00025	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0013 B		0.0040	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.20		0.010	0.0014	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.070		0.050	0.00040	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.21		0.025	0.0070	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Iron	215		0.10	0.020	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.2		0.015	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00052		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.18		0.040	0.00057	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.55		0.10	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.15  
4

## Report of Analysis

<b>Client Sample ID:</b> AL3-16(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-6	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63904.D	1	03/19/14	KD	n/a	n/a	MSM2241
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.01 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	206	15	4.1	ug/kg	
71-43-2	Benzene	1.7	0.74	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	2.9	0.31	ug/kg	
75-25-2	Bromoform	ND	2.9	0.52	ug/kg	
74-83-9	Bromomethane	ND	2.9	0.89	ug/kg	
78-93-3	2-Butanone (MEK)	ND	15	4.5	ug/kg	
75-15-0	Carbon disulfide	1.7	7.4	0.19	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.9	0.32	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	0.23	ug/kg	
75-00-3	Chloroethane	ND	7.4	1.1	ug/kg	
67-66-3	Chloroform	ND	2.9	0.25	ug/kg	
74-87-3	Chloromethane	ND	7.4	0.83	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	0.48	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.9	0.39	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.9	0.47	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.9	0.61	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.9	0.67	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.9	0.62	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.9	0.62	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	0.62	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	0.33	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	0.39	ug/kg	
100-41-4	Ethylbenzene	ND	2.9	1.0	ug/kg	
591-78-6	2-Hexanone	ND	15	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.9	0.27	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.4	0.80	ug/kg	
75-09-2	Methylene chloride	3.6	2.9	0.78	ug/kg	B
100-42-5	Styrene	ND	7.4	0.25	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	0.58	ug/kg	
127-18-4	Tetrachloroethene	ND	2.9	0.46	ug/kg	
108-88-3	Toluene	2.3	7.4	0.30	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.9	0.32	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.16  
4

## Report of Analysis

<b>Client Sample ID:</b> AL3-16(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-6	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.9	0.85	ug/kg	
79-01-6	Trichloroethene	ND	2.9	0.36	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	1.3	ug/kg	
1330-20-7	Xylene (total)	0.69	2.9	0.32	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	53	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	27	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.83	14	ug/kg	JN
110-54-3	Hexane	8.45	20	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8	ug/kg	JN
110-82-7	Cyclohexane	9.91	7.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	10	ug/kg	JN
	Total TIC, Volatile		139.7	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.16  
4

## Report of Analysis

<b>Client Sample ID:</b> AL3-16(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-6	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37462.D	1	03/13/14	KR	03/10/14	OP37118	MSR1383
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	96	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	74	ug/kg	
95-48-7	2-Methylphenol	ND	590	23	ug/kg	
106-44-5	4-Methylphenol	ND	590	30	ug/kg	
88-75-5	2-Nitrophenol	ND	590	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	590	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	15	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	590	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL3-16(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-6	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.2	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	27.3	290	11	ug/kg	J
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	590	15	ug/kg	
99-09-2	3-Nitroaniline	ND	590	32	ug/kg	
100-01-6	4-Nitroaniline	ND	590	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	16.8	120	16	ug/kg	J
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	83%		30-130%
4165-62-2	Phenol-d5	82%		30-130%
118-79-6	2,4,6-Tribromophenol	93%		30-130%
4165-60-0	Nitrobenzene-d5	82%		30-130%
321-60-8	2-Fluorobiphenyl	87%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-16(0.5-1.5)-030714 <b>Lab Sample ID:</b> MC28780-6 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/07/14 <b>Date Received:</b> 03/08/14 <b>Percent Solids:</b> 84.6
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	101%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.66	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.16  
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# Report of Analysis

<b>Client Sample ID:</b> AL3-16(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-6	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.6	0.92	0.19	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	87.8	4.6	0.067	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.54	0.37	0.022	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.074 B	0.37	0.039	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	20500	460	5.8	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	16.3	0.92	0.088	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	7.9	4.6	0.043	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.0	2.3	0.51	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	17100	9.2	0.80	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	13.6	0.92	0.16	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	9380	460	4.7	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	255	1.4	0.037	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.033 B	0.038	0.0083	mg/kg	1	03/19/14	03/19/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	17.6	3.7	0.041	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	888	460	7.9	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.53 B	0.92	0.32	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.13 B	0.46	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1010	460	3.1	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.35 B	0.92	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	33.7	0.92	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	43.7	1.8	0.15	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16890
- (3) Prep QC Batch: MP22658
- (4) Prep QC Batch: MP22697

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-16(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-6	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.6		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	7.7		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit



# Report of Analysis

<b>Client Sample ID:</b> AL3-16(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-6A	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0098 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	1.2	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00030 B			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.048 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	2.2			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0088 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	8.3			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.045			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.065 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL3-16(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-6B	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.057		0.010	0.0029	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.0		0.50	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0059		0.0040	0.00025	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.16		0.010	0.0014	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.050		0.050	0.00040	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Iron	144		0.10	0.020	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.0		0.015	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00013 B		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.14		0.040	0.00057	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0049 B		0.025	0.0048	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
Accutest Quote # \_\_\_\_\_ Accutest Job # **MC28780**

Client / Reporting Information		Project Information										Requested Analysis ( see TEST CODE sheet)										Matrix Codes											
Company Name <i>Wispin Solution</i>		Project Name <i>IDOT-048 Wethers County</i>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank										Matrix Codes											
Street Address <i>750 E Banker Ct Ste 500</i>		Street:		Billing Information ( If different from Report to )																													
City <i>Vernon Hills IL</i>		State <i>IL</i>		Zip <i>60061</i>		Company Name				Street Address														City				State		Zip			
Project Contact <i>S. B. Schmittner</i>		E-mail <i>S.B.Schmittner@wispin.com</i>		Project#		Street Address		City		State		Zip		City		State		Zip															
Phone # <i>847-418-4015</i>		Fax #		Client POB		Street Address		City		State		Zip		City		State		Zip															
Sampler(s) Name(s) <i>T. Wallis</i>		Phone #		Project Manager		Attention:		POB		City		State		City		State		Zip															
Accutest Sample #	Field ID / Point of Collection	MEO/DOI Val #	Collection			Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY															
			Date	Time	Sampled by			HCU	NHCH	HNCH	HNCS	HSCCK	NONE	D: Water	MEDIA	ENCORE	Blankette																
-1	VL10-1(0.5-1.5)-030714		3-7-14	0745	TW	SO	3																										
-2	CB2-1(0.5-1.5)-030714			0805																													
-3	CB2-2(0.5-1.5)-030714			0815																													
-4	AL3-12(0.5-1.5)-030714			0855																													
-5	AL3-14(0.5-1.5)-030714			0905																													
-6	AL3-16(0.5-1.5)-030714			0920																													
-7	AL3-18(0.5-1.5)-030714			0930																													
-8	AL3-20(0.5-1.5)-030714			0950			3																										
-9	VL1-6(0.5-1.5)-030714		3-7-14	1025	TW	SO	2																	15B									
<p><del>7-6-14 day 3-7-14</del></p>																																	
Data Deliverable Information										Comments / Special Instructions																							
Turnaround Time ( Business days ) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>					Approved By (Accutest PM) / Date: _____					<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 344) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP					<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>																		
Sample Custody must be documented below each time samples change possession, including courier delivery.																																	
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:		Received By:									
1 <i>T. Wallis</i>		3-7-14/10:40		3 <i>T. Wallis</i>		3-7-14 10:40		4 <i>FEDX</i>		3-7-14 10:40		2 <i>Mary Parson</i>																					
3				3				4				4																					
5				5				5				5																					
Custody Seal #				<input type="checkbox"/> Intact				Preserved where applicable				<input type="checkbox"/> On Ice				Cooler Temp. <i>2.4 C</i>																	
				<input type="checkbox"/> Not intact																													

**MC28780: Chain of Custody**

**Page 1 of 2**



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16220 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.335123257 Longitude: -88.481613839  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.335123257 Longitude: -88.481613839Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION RE3-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-24. SEE FIGURE 3-5 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28683

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

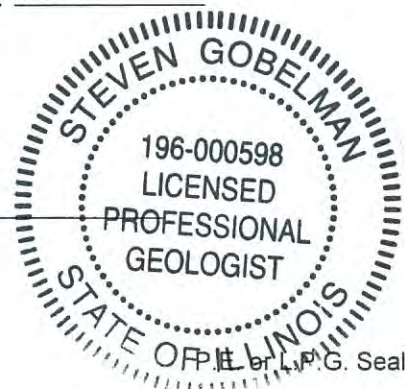
I, Steven Gobelman, P.E., L.P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G.

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

**Summary Table of ISGS Site No. 2792-24**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE3-1(0.5-1.5)-030314	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/3/2014	
Location ID	RE3-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Acetone	41 J	25000
Benzene	3.6 J	30
Carbon disulfide	0.64 J	9000
Ethylbenzene	1.9 J	13000
Methyl ethyl ketone	7 J	17000
Methylene chloride	3 J	20
Toluene	6.5 J	12000
Xylene (Total)	4 J	5600
<b>SVOCs (ug/kg)</b>		
Chrysene	79.3 J	88000
Fluoranthene	142 J	3100000
Phenanthrene	81.3 J	210000
Pyrene	149 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	3.7	11.3 / 13
Barium, Total	14.8	1500
Beryllium, Total	0.11 J	22
Cadmium, Total	0.25 J	5.2
Calcium, Total	114000	---
Chromium, Total	15.3	21
Cobalt, Total	2.6 J	20
Copper, Total	16.4	2900
Iron, Total	7560	15000 / 15900
Lead, Total	82.2 J	107
Magnesium, Total	58500	325000
Manganese, Total	285 J	630 / 636
Mercury, Total	0.0098 J	0.89
Nickel, Total	8.2	100
Potassium, Total	400 J	---
Selenium, Total	0.32 J	1.3
Sodium, Total	2190	---
Vanadium, Total	12	550
Zinc, Total	76.4 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.23 J	2
Cadmium, TCLP	0.0037 J	0.005
Chromium, TCLP	0.0026 J	0.1
Cobalt, TCLP	0.0034 J	1
Lead, TCLP	0.015	0.0075
Manganese, TCLP	1.3	0.15
Nickel, TCLP	0.0078 J	0.1
Selenium, TCLP	0.0095 J	0.05
Zinc, TCLP	0.25	5

**Summary Table of ISGS Site No. 2792-24**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE3-1(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	
Location ID	RE3-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.011	0.05
Barium, SPLP	0.12 J	2
Beryllium, SPLP	0.0008 J	0.004
Cadmium, SPLP	0.0017 J	0.005
Chromium, SPLP	0.047	0.1
Cobalt, SPLP	0.006 J	1
Copper, SPLP	0.049	0.65
Iron, SPLP	21.9 J	5
Lead, SPLP	0.56	0.0075
Manganese, SPLP	0.28	0.15
Nickel, SPLP	0.022 J	0.1
Silver, SPLP	0.0021 J	0.05
Zinc, SPLP	0.37	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28683

Sampling Date: 03/03/14

Report to:

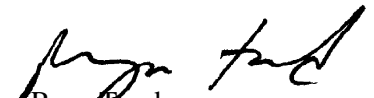
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **343**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b>	RE3-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-5	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28457.D	1	03/07/14	AMY	n/a	n/a	MSV1066
Run #2 <sup>a</sup>	V28492.D	1	03/10/14	AMY	n/a	n/a	MSV1067

Run #	Initial Weight	Final Volume
Run #1	4.40 g	5.0 ml
Run #2	3.89 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	41.0	13	3.5	ug/kg	
71-43-2	Benzene	3.6	0.63	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	0.26	ug/kg	
75-25-2	Bromoform	ND	2.5	0.45	ug/kg	
74-83-9	Bromomethane	ND	2.5	0.75	ug/kg	
78-93-3	2-Butanone (MEK)	7.0	13	3.9	ug/kg	J
75-15-0	Carbon disulfide	0.64	6.3	0.16	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.5	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.3	0.95	ug/kg	
67-66-3	Chloroform	ND	2.5	0.21	ug/kg	
74-87-3	Chloromethane	ND	6.3	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	0.40	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	0.40	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	0.52	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.57	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.52	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.5	0.52	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	0.53	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.33	ug/kg	
100-41-4	Ethylbenzene	1.9	2.5	0.86	ug/kg	J
591-78-6	2-Hexanone	ND	13	0.95	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.3	0.68	ug/kg	
75-09-2	Methylene chloride	3.0	2.5	0.67	ug/kg	
100-42-5	Styrene	ND	6.3	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.49	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.39	ug/kg	
108-88-3	Toluene	6.5	6.3	0.26	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.27	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE3-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28683-5	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.72	ug/kg	
79-01-6	Trichloroethene	ND	2.5	0.31	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	1.1	ug/kg	
1330-20-7	Xylene (total)	4.0	2.5	0.27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%	94%	70-130%
2037-26-5	Toluene-D8	76%	75%	70-130%
460-00-4	4-Bromofluorobenzene	127%	135% <sup>b</sup>	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	44	ug/kg	JN
109-66-0	Pentane	2.41	25	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.83	6.2	ug/kg	JN
627-40-7	1-Propene, 3-methoxy-	4.10	1	ug/kg	JN
110-54-3	Hexane	4.24	10	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.30	7.2	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.80	2.3	ug/kg	JN
142-82-5	Heptane	7.54	4.5	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.32	9.4	ug/kg	JN
1823-52-5	2-Oxetanone, 4,4-dimethyl-	10.47	3.8	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.96	3.6	ug/kg	JN
	Total TIC, Volatile		117	ug/kg	J

(a) Confirmation run.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected      MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE3-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-5	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18062.D	5	03/10/14	KR	03/05/14	OP37062	MSW791
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	79	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	340	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	79.3	550	68	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE3-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-5	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	142	550	75	ug/kg	J
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	81.3	550	74	ug/kg	J
129-00-0	Pyrene	149	550	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE3-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-5 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.5
---	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	96%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.67	5800	ug/kg JN
	Total TIC, Semi-Volatile		5800	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.13  
4

# Report of Analysis

<b>Client Sample ID:</b> RE3-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-5	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.7	0.88	0.18	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	14.8	4.4	0.064	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.11 B	0.35	0.021	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.25 B	0.35	0.037	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	114000	4400	56	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	15.3	0.88	0.084	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	2.6 B	4.4	0.042	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	16.4	2.2	0.49	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	7560	8.8	0.77	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	82.2	0.88	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	58500	440	4.5	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	285	1.3	0.035	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0098 B	0.035	0.0077	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	8.2	3.5	0.039	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	400 B	440	7.6	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 B	0.88	0.31	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2190	440	2.9	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.88	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	12.0	0.88	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	76.4	1.8	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16831
- (2) Instrument QC Batch: MA16841
- (3) Instrument QC Batch: MA16842
- (4) Prep QC Batch: MP22607
- (5) Prep QC Batch: MP22634

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE3-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-5	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.5		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.0		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.13  
**4**

# Report of Analysis

<b>Client Sample ID:</b> RE3-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-5A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.23 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0037 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0026 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0034 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.015	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0078 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0095 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.25			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.14  
 4



## Report of Analysis

<b>Client Sample ID:</b> RE3-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-5B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.011		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.12 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00080 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0017 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.047		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0060 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.049		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	21.9		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.56		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.28		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.022 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0021 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)                      B = Indicates a result > = MDL but < RL

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)												Matrix Codes						
Company Name Western Solutions		Project Name IDOT-048 McHenry County		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">                 JOCs SNOCs Total Metals TCLP/SPLP metals PH             </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">                 DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank             </div> </div>												Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank						
Street Address 750 F. Bunker Ct Ste 500		Street: Billing Information ( If different from Report to)																				
City State Zip Norton Hills IL 60061		City: Company Name																				
Project Contact S. Babusankumar		Project#: Street Address																				
Phone # Fax # 847-918-4018 4055		Client PO#: City State Zip																				
Sampler(s) Name(s) T. Wells 817-918-4130		Project Manager Matt Maxwell		Attention: PO#																		
Accutest Sample #	Field ID / Point of Collection	MEQHD/Val #	Date	Time	Sampled by	Matrix	# of bottles	HC	NH3	NH4	NH2S	PH	DI Water	MEQ	ENCORE	Surfline	LAB USE ONLY					
-1	LL-1(0.5-1.5)-030314		3-3-14	0805	TW	SO	3										X	X	X	X	X	
-2	LL-1(0.5-1.5)-080314D			0805																		
-3	RS1-1(0.5-1.5)-030314			0825																		
-4	RS1-2(0.5-1.5)-030314			0840																		
-5	RE3-1(0.5-1.5)-030314			0900																		
-6	RES2-1(0.5-1.5)-030314			0915																		
-7	TF-1(0.5-1.5)-030314			0925																		
-8	TF-2(0.5-1.5)-030314			1105																		
-9	TF-3(0.5-1.5)-030314			1120																		
-10	AL2-9(0.5-1.5)-030314			1135																		
-11	AL2-8(0.5-1.5)-030314			1145																		
-12	CN-1(0.5-1.5)-030314		3-3-14	1200	TW	SO	3											X	X	X	X	X
Data Deliverable Information								Comments / Special Instructions														
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink				Approved By (Accutest PM): / Date: _____				<input type="checkbox"/> Commercial "A" ( Level 1) <input type="checkbox"/> Commercial "B" ( Level 2) <input type="checkbox"/> FULLT1 ( Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____				Commercial "A" = Results Only Commercial "B" = Results + QC Summary		14E				
Sample Custody must be documented below each time samples change possession, including courier delivery.																CHICAGO BC						
Relinquished by Sampler: 1 Z. Q. N. H.		Date Time: 3-4-14 / 15:40		Received By: [Signature]		Date Time: 3/4/14 15:40		Relinquished By: [Signature]		Date Time: 3/5/14 9:30		Received By: 2 Will Chad										
Relinquished by Sampler: 3		Date Time:		Received By: 3		Date Time:		Relinquished By: 4		Date Time:		Received By: 4										
Relinquished by: 5		Date Time:		Received By: 5		Date Time:		Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Preserved where applicable <input type="checkbox"/>		On Ice <input checked="" type="checkbox"/>		Cooler Temp. 12.9°C						

5.1  
5



### CHAIN OF CUSTODY

Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28683</b>

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes																																																																																																						
Company Name: <b>Weston Solutions</b> Street Address: <b>750 E. Bunker Ct Ste 500</b> City: <b>Norfolk Hills IL</b> State: <b>IL</b> Zip: <b>60061</b> Project Contact: <b>S. Babusukumar</b> E-mail: _____ Phone #: <b>847-918-4018</b> Fax #: <b>-4055</b> Sampler(s) Name(s): <b>T. W. Nils</b> Phone #: <b>847-918-4130</b>	Project Name: <b>IDOT-048 McHenry County</b> Street: _____ Billing Information (if different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project Manager: <b>Matt Mourell</b> Attention: _____ Client POB: _____ FOF: _____	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-family: monospace; font-size: 1.2em; margin-right: 5px;">           YCS            SUCS            Total Metals            TCLP/SPLP Metals            PH         </div> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <th>Matrix Code</th><th>YCS</th><th>SUCS</th><th>Total Metals</th><th>TCLP/SPLP Metals</th><th>PH</th></tr> <tr><td>D/W - Drinking Water</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>GW - Ground Water</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>VW - Vialter</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>SW - Surface Water</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>SC - Soil</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>SL - Sludge</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>SED-Sediment</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>CI - Oil</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>LQ - Other Liquid</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>AIR - Air</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>SOL - Other Solid</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WP - Wipe</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>FB-Field Blank</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>EB- Equipment Blank</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>RB- Rinse Blank</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>TB-Trip Blank</td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div>	Matrix Code	YCS	SUCS	Total Metals	TCLP/SPLP Metals	PH	D/W - Drinking Water						GW - Ground Water						VW - Vialter						SW - Surface Water						SC - Soil						SL - Sludge						SED-Sediment						CI - Oil						LQ - Other Liquid						AIR - Air						SOL - Other Solid						WP - Wipe						FB-Field Blank						EB- Equipment Blank						RB- Rinse Blank						TB-Trip Blank						LAB USE ONLY
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Accutest Sample #	Field ID / Point of Collection	MECH/DI Vial #	Collection				Number of preserved Bottles															
			Date	Time	Sampled by	Matrix	# of bottles	HCl	NH <sub>4</sub> H	PH <sub>2</sub> S	H <sub>2</sub> SO <sub>4</sub>	NONE	D5 Water	MEDIA	ENCORE	Blank						
-13	CN-2(0.5-1.5)-030314		3-3-14	1210	TW	SO	3											X	X	X	X	X
-14	CN-3(0.5-1.5)-030314			1225																		
-15	CN-3(0.5-1.5)-030314D			1225																		
-16	AL3-1(0.5-1.5)-030314			1240																		
-17	AL3-3(0.5-1.5)-030314			1300																		
-18	AL3-5(0.5-1.5)-030314			1315																		
-19	AL3-7(0.5-1.5)-030314			1325																		
-20	AL3-8(0.5-1.5)-030314		3-3-14	1350	TW	SO	3											X	X	X	X	X

Turnaround Time (Business days)	Data Deliverable Information	Comments / Special Instructions
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY	<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format _____ <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>	
Approved By (Accutest PM): / Date: _____ Approved By: _____ Approved By: _____ Approved By: _____		

Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by Sampler: <b>1 T. W. Nils</b>	Date Time: <b>3-4-14/15:40</b>	Received By: <i>[Signature]</i>	Date Time: <b>3/4/14 15:40</b>	Relinquished By: <i>[Signature]</i>	Date Time: <b>3/5/14 9:30</b>	Received By: <i>[Signature]</i>	
Relinquished by Sampler: <b>3</b>	Date Time: _____	Received By: _____	Date Time: _____	Relinquished By: _____	Date Time: _____	Received By: _____	
Relinquished by: <b>5</b>	Date Time: _____	Received By: _____	Date Time: _____	Custody Seal #	<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not intact <input type="checkbox"/> On ice    Cooler Temp.		

MC28683: Chain of Custody  
Page 2 of 3

5.1  
5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

16210 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.339167712 Longitude: -88.514916889

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

EPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.339167712 Longitude: -88.514916889

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS RS1-1 AND RS1-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-25. SEE FIGURE 3-5 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28683

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

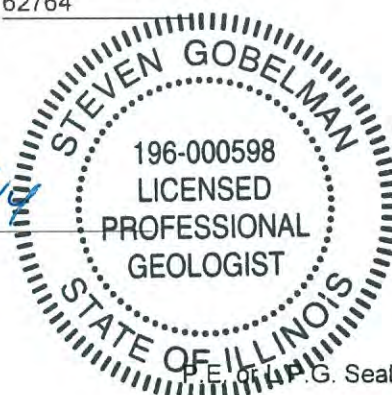
Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-25**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RS1-1(0.5-1.5)-030314	RS1-2(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	
Location ID	RS1-1	RS1-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.7	8.1	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Acetone	28.9	26	25000
Benzene	4.4 J	4.7	30
Carbon disulfide	0.79 J	0.59 J	9000
Ethylbenzene	2.3 J	2.9	13000
Methyl ethyl ketone	ND	ND	17000
Methylene chloride	2.9	4.4	20
Toluene	8.3 J	9.7	12000
Xylene (Total)	5.2 J	11	5600
<b>SVOCs (ug/kg)</b>			
Benzo(a)anthracene	60.2 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	57.1 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	80.3 J	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	49.4 J	ND	2300000
Benzo(k)fluoranthene	19.4 J	ND	9000
bis(2-Ethylhexyl)phthalate	24.1 J	ND	46000
Butyl benzyl phthalate	32.3 J	ND	930000
Chrysene	46.4 J	ND	88000
Fluoranthene	101 J	ND	3100000
Indeno(1,2,3-cd)pyrene	35.4 J	ND	900 / 900 / 1600
Phenanthrene	32.9 J	ND	210000
Pyrene	90 J	ND	2300000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	3.1	3.4	11.3 / 13
Barium, Total	22.7	55.7	1500
Beryllium, Total	0.11 J	0.18 J	22
Cadmium, Total	ND	0.21 J	5.2
Calcium, Total	152000	112000	---
Chromium, Total	8.5	13.7	21
Cobalt, Total	2.6 J	3.8 J	20
Copper, Total	12.6	23.5	2900
Iron, Total	7560	10900	15000 / 15900
Lead, Total	42.6 J	46.9 J	107
Magnesium, Total	87800	65100	325000
Manganese, Total	348 J	373 J	630 / 636
Mercury, Total	ND	0.0083 J	0.89
Nickel, Total	7.2	11	100
Potassium, Total	413 J	497	---
Selenium, Total	0.62 J	ND	1.3
Sodium, Total	1210	2610	---
Thallium, Total	ND	ND	2.6
Vanadium, Total	12.1	14.6	550
Zinc, Total	53.5 J	75.2 J	5100

**Summary Table of ISGS Site No. 2792-25**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RS1-1(0.5-1.5)-030314	RS1-2(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	
Location ID	RS1-1	RS1-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>TCLP Metals (mg/l)</b>			
Barium, TCLP	0.14 J	0.2 J	2
Cadmium, TCLP	0.0018 J	0.0022 J	0.005
Chromium, TCLP	0.0048 J	0.0018 J	0.1
Cobalt, TCLP	0.0085 J	0.0046 J	1
Lead, TCLP	0.021	0.0095 J	0.0075
Manganese, TCLP	1.4	1.5	0.15
Nickel, TCLP	0.015 J	0.014 J	0.1
Selenium, TCLP	0.0088 J	0.0082 J	0.05
Zinc, TCLP	0.23	0.17	5
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.0066 J	ND	0.05
Barium, SPLP	0.033 J	0.032 J	2
Cadmium, SPLP	0.0005 J	ND	0.005
Chromium, SPLP	0.029	0.0072 J	0.1
Cobalt, SPLP	0.0024 J	0.001 J	1
Copper, SPLP	0.016 J	0.011 J	0.65
Iron, SPLP	8.8 J	3.1 J	5
Lead, SPLP	0.12	0.022	0.0075
Manganese, SPLP	0.16	0.081	0.15
Nickel, SPLP	0.0085 J	0.004 J	0.1
Silver, SPLP	0.0013 J	ND	0.05
Zinc, SPLP	0.097 J	0.062 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/17/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28683

Sampling Date: 03/03/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **343**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.





## Report of Analysis

<b>Client Sample ID:</b>	RS1-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.9
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.70	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	5.2	2.4	0.27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	113%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	37	ug/kg	JN
109-66-0	Pentane	2.42	25	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.83	6.6	ug/kg	JN
110-54-3	Hexane	4.24	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.30	8.1	ug/kg	JN
123-75-1	Pyrrolidine	6.80	3.2	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.35	2.8	ug/kg	JN
142-82-5	Heptane	7.54	6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.32	14	ug/kg	JN
66-25-1	Hexanal	10.47	5.5	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.53	2	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	3.7	ug/kg	JN
	Total TIC, Volatile		124.9	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RS1-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18060.D	1	03/10/14	KR	03/05/14	OP37062	MSW791
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	570	71	ug/kg	
95-48-7	2-Methylphenol	ND	570	22	ug/kg	
106-44-5	4-Methylphenol	ND	570	29	ug/kg	
88-75-5	2-Nitrophenol	ND	570	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	570	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	60.2	110	15	ug/kg	J
50-32-8	Benzo(a)pyrene	57.1	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	80.3	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	49.4	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	19.4	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	32.3	280	12	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	570	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	46.4	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RS1-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	24.1	280	10	ug/kg	J
206-44-0	Fluoranthene	101	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	35.4	110	12	ug/kg	J
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	570	14	ug/kg	
99-09-2	3-Nitroaniline	ND	570	31	ug/kg	
100-01-6	4-Nitroaniline	ND	570	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	32.9	110	15	ug/kg	J
129-00-0	Pyrene	90.0	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	79%		30-130%
118-79-6	2,4,6-Tribromophenol	100%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	88%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RS1-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	102%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.67	2300	ug/kg JN
	Total TIC, Semi-Volatile		2300	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

# Report of Analysis

<b>Client Sample ID:</b> RS1-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Arsenic	3.1	0.91	0.19	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Barium	22.7	4.5	0.066	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Beryllium	0.11 B	0.36	0.022	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Cadmium	0.038 U	0.36	0.038	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Calcium	152000	4500	57	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>5</sup>
Chromium	8.5	0.91	0.086	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Cobalt	2.6 B	4.5	0.043	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Copper	12.6	2.3	0.50	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Iron	7560	9.1	0.79	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Lead	42.6	0.91	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Magnesium	87800	4500	46	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>5</sup>
Manganese	348	1.4	0.036	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Mercury	0.0071 U	0.032	0.0071	mg/kg	1	03/06/14	03/07/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	7.2	3.6	0.040	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Potassium	413 B	450	7.8	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Selenium	0.62 B	0.91	0.31	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Sodium	1210	450	3.0	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Thallium	0.12 U	0.91	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Vanadium	12.1	0.91	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Zinc	53.5	1.8	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>

- (1) Instrument QC Batch: MA16823
- (2) Instrument QC Batch: MA16831
- (3) Instrument QC Batch: MA16841
- (4) Prep QC Batch: MP22603
- (5) Prep QC Batch: MP22607

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
 4

## Report of Analysis

<b>Client Sample ID:</b> RS1-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.9		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b> RS1-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-3A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.9
---	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.14 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0018 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0048 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0085 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.021	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.015 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0088 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.23			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.8  
4



## Report of Analysis

<b>Client Sample ID:</b> RS1-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-3B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.9
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0066 B		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.033 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00025 U		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.029		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0024 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.016 B		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	8.8		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.16		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.0085 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0013 B		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.097 B		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b>	RS1-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-4	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.8
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28491.D	1	03/10/14	AMY	n/a	n/a	MSV1067
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.03 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	26.0	14	4.0	ug/kg	
71-43-2	Benzene	4.7	0.72	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.9	0.30	ug/kg	
75-25-2	Bromoform	ND	2.9	0.51	ug/kg	
74-83-9	Bromomethane	ND	2.9	0.86	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.4	ug/kg	
75-15-0	Carbon disulfide	0.59	7.2	0.19	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.9	0.31	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	0.23	ug/kg	
75-00-3	Chloroethane	ND	7.2	1.1	ug/kg	
67-66-3	Chloroform	ND	2.9	0.24	ug/kg	
74-87-3	Chloromethane	ND	7.2	0.81	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	0.46	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.9	0.38	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.9	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.9	0.59	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.9	0.65	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.9	0.60	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.9	0.60	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	0.60	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	0.32	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	0.38	ug/kg	
100-41-4	Ethylbenzene	2.9	2.9	0.99	ug/kg	
591-78-6	2-Hexanone	ND	14	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.9	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.2	0.77	ug/kg	
75-09-2	Methylene chloride	4.4	2.9	0.76	ug/kg	
100-42-5	Styrene	ND	7.2	0.24	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	0.56	ug/kg	
127-18-4	Tetrachloroethene	ND	2.9	0.45	ug/kg	
108-88-3	Toluene	9.7	7.2	0.29	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.9	0.31	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RS1-2(0.5-1.5)-030314		<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-4		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 86.8
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.9	0.82	ug/kg	
79-01-6	Trichloroethene	ND	2.9	0.35	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	1.3	ug/kg	
1330-20-7	Xylene (total)	11.0	2.9	0.31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	117%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	40	ug/kg	JN
109-66-0	Pentane	2.44	26	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.86	6	ug/kg	JN
110-54-3	Hexane	4.27	10	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.34	6.7	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.84	2.6	ug/kg	JN
592-77-8	2-Heptene	7.38	2.2	ug/kg	JN
142-82-5	Heptane	7.57	4.9	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.35	13	ug/kg	JN
111-65-9	Octane	9.83	2.3	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.55	5.2	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.64	2.8	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.97	7.6	ug/kg	JN
	Unknown	13.46	2.1	ug/kg	JN
	Total TIC, Volatile		131.4	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	RS1-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-4	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18061.D	5	03/10/14	KR	03/05/14	OP37062	MSW791
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	71	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	81	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	700	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	75	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	70	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	69	ug/kg	
83-32-9	Acenaphthene	ND	560	75	ug/kg	
208-96-8	Acenaphthylene	ND	560	56	ug/kg	
120-12-7	Anthracene	ND	560	67	ug/kg	
56-55-3	Benzo(a)anthracene	ND	560	72	ug/kg	
50-32-8	Benzo(a)pyrene	ND	560	60	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	560	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	560	56	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	560	84	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	71	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	76	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	70	ug/kg	
86-74-8	Carbazole	ND	560	66	ug/kg	
218-01-9	Chrysene	ND	560	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	66	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	85	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	86	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RS1-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28683-4	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	72	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	80	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	74	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	70	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	67	ug/kg	
132-64-9	Dibenzofuran	ND	560	77	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	70	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	81	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	52	ug/kg	
206-44-0	Fluoranthene	ND	560	76	ug/kg	
86-73-7	Fluorene	ND	560	74	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	87	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	81	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	560	62	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	71	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	70	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	70	ug/kg	
91-20-3	Naphthalene	ND	560	90	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	80	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	84	ug/kg	
85-01-8	Phenanthrene	ND	560	76	ug/kg	
129-00-0	Pyrene	ND	560	66	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	77	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RS1-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> RS1-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.94	0.14	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Arsenic	3.4	0.94	0.20	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Barium	55.7	4.7	0.069	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Beryllium	0.18 B	0.38	0.022	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Cadmium	0.21 B	0.38	0.040	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Calcium	112000	4700	59	mg/kg	10	03/06/14	03/10/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>5</sup>
Chromium	13.7	0.94	0.090	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Cobalt	3.8 B	4.7	0.044	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Copper	23.5	2.4	0.52	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Iron	10900	9.4	0.82	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Lead	46.9	0.94	0.16	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Magnesium	65100	470	4.8	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Manganese	373	1.4	0.038	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Mercury	0.0083 B	0.034	0.0076	mg/kg	1	03/06/14	03/07/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	11.0	3.8	0.041	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Potassium	497	470	8.1	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Selenium	0.33 U	0.94	0.33	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Sodium	2610	470	3.1	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Thallium	0.13 U	0.94	0.13	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Vanadium	14.6	0.94	0.12	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Zinc	75.2	1.9	0.15	mg/kg	1	03/06/14	03/06/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>

- (1) Instrument QC Batch: MA16823
- (2) Instrument QC Batch: MA16831
- (3) Instrument QC Batch: MA16841
- (4) Prep QC Batch: MP22603
- (5) Prep QC Batch: MP22607

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RS1-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.8		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> RS1-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28683-4A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.20 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0022 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0018 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0046 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0095 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.5			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0082 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.17			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16835
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22623
- (5) Prep QC Batch: MP22630

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RS1-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28683-4B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.8
---	--

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.032 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00025 U		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.0072 B		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0010 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.011 B		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	3.1		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.022		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.081		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/07/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.0040 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.062 B		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16828
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22613
- (4) Prep QC Batch: MP22616

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.12  
4

Client / Reporting Information		Project Information					Requested Analysis ( see TEST CODE sheet)										Matrix Codes					
Company Name <i>Woston Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>															DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank					
Street Address <i>750 F. Banker Ct Ste 500</i>		Street:																LAB USE ONLY				
City State Zip <i>Norwich IL 60611</i>		Billing Information ( If different from Report to ) Company Name																	JOCs SNOCs Total Metals TCAP/SPD Metals PH			
Project Contact <i>S. Babusankumar</i>		Street Address																		X X X X X		
Phone # Fax # <i>847-918-4018 4055</i>		Client PO#																			X X X X X	
Sampler(s) Name(s) <i>T. Wells</i>		Project Manager <i>Matt Maxwell</i>																				X X X X X
Accutest Sample #	Field ID / Point of Collection	MEQHD/ Val #	Date	Time	Sampled by	Matrix	# of bottles	HC	NH3	NH2S	PH/DO	NONE	DI Water	MEDH	ENCODE	Surfline						
-1	LL-1(0.5-1.5)-030314		3-3-14	0805	TW	SO	3															
-2	LL-1(0.5-1.5)-080314D			0805																		
-3	RS1-1(0.5-1.5)-030314			0825																		
-4	RS1-2(0.5-1.5)-030314			0840																		
-5	RE3-1(0.5-1.5)-030314			0900																		
-6	RES2-1(0.5-1.5)-030314			0915																		
-7	TF-1(0.5-1.5)-030314			0925																		
-8	TF-2(0.5-1.5)-030314			1105																		
-9	TF-3(0.5-1.5)-030314			1120																		
-10	AL2-9(0.5-1.5)-030314			1135																		
-11	AL2-8(0.5-1.5)-030314			1145																		
-12	CN-1(0.5-1.5)-030314		3-3-14	1200	TW	SO	3															
					Data Deliverable Information					Comments / Special Instructions												
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM): / Date: _____			<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____					Commercial "A" = Results Only Commercial "B" = Results + QC Summary					CHICAGO BC 14E							
Emergency & Rush T/A data available VIA Lablink																						
Sample Custody must be documented below each time samples change possession, including courier delivery.																						
Relinquished by Sampler: <i>1 T. Wells</i>		Date Time: <i>3-4-14 15:40</i>		Received By: <i>M. Kelly</i>		Date Time: <i>3/4/14 15:40</i>		Relinquished By: <i>K. Pitt</i>		Date Time: <i>3/5/14 9:30</i>		Received By: <i>Will Chad</i>										
3				3				4				4										
5				5				Custody Seal #		<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/>		On Ice <i>5°C</i> Cooler Temp. <i>6.9°C</i>										

5.1  
**5**

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC 28683</b>

Client / Reporting Information			Project Information										Requested Analysis ( see TEST CODE sheet)										Matrix Codes
Company Name <b>Western Solutions</b>			Project Name <b>IDOT-048 McHenry County</b>										<div style="display: flex; flex-direction: column; align-items: center; justify-content: center;"> <p>VCS</p> <p>SUCs</p> <p>Total Metals</p> <p>TCLP/SPLP Metals</p> <p>PH</p> </div>										<p>D/W - Drinking Water</p> <p>GW - Ground Water</p> <p>WW - Wastewater</p> <p>SW - Surface Water</p> <p>SO - Soil</p> <p>SL - Sludge</p> <p>SED - Sediment</p> <p>OI - Oil</p> <p>LQ - Other Liquid</p> <p>AIR - Air</p> <p>SOL - Other Solid</p> <p>WP - Wipe</p> <p>FB - Field Blank</p> <p>EB - Equipment Blank</p> <p>RB - Rinse Blank</p> <p>TB - Trip Blank</p>
Street Address <b>750 E. Bunker Ct Ste 500</b>			Billing Information ( If different from Report to)																				
City <b>Norfolk Hills IL 60061</b>			Company Name																				
Project Contact <b>S. Babusukumar</b>			Street Address																				
Phone # <b>847-918-4018</b>			City <b>State</b>										Matrix Codes										LAB USE ONLY
Fax # <b>-4055</b>			Client PO#																				
Sampler(s) Name(s) <b>T. Wills</b>			Attention: <b>FO#</b>																				
Phone # <b>847-918-4130</b>			Project Manager <b>Matt Maxwell</b>																				
Accutest Sample #	Field ID / Point of Collection	MECH/ID Vial #	Collection				Number of preserved Bottles																
			Date	Time	Sampled by	Matrix	# of bottles	HCl	NH <sub>4</sub> OH	PHOS	H <sub>2</sub> SO <sub>4</sub>	NONE	D/W Filter	MEDIA	ENCLOSURE	Strips/As							
-13	CN-2(0.5-1.5)-030314		3-3-14	1210	TW	SO	3					3						X X X X X					
-14	CN-3(0.5-1.5)-030314			1225																			
-15	CN-3(0.5-1.5)-030314			1225																			
-16	AL3-1(0.5-1.5)-030314			1240																			
-17	AL3-3(0.5-1.5)-030314			1300																			
-18	AL3-5(0.5-1.5)-030314			1315																			
-19	AL3-7(0.5-1.5)-030314			1325																			
-20	AL3-8(0.5-1.5)-030314		3-3-14	1350	TW	SO	3					3						X X X X X					

*7-6-14*

Turnaround Time ( Business days)		Approved By (Accutest PM): / Date:	Data Deliverable Information		Comments / Special Instructions
<input checked="" type="checkbox"/> Std. 10 Business Days			<input type="checkbox"/> Commercial "A" ( Level 1 )	<input type="checkbox"/> NYASP Category A	
<input type="checkbox"/> Std. 5 Business Days (By Contract only)			<input type="checkbox"/> Commercial "B" ( Level 2 )	<input type="checkbox"/> NYASP Category B	
<input type="checkbox"/> 5 Day RUSH			<input type="checkbox"/> FULLT1 ( Level 3+4 )	<input type="checkbox"/> State Forms	
<input type="checkbox"/> 3 Day EMERGENCY			<input type="checkbox"/> CT RCP	<input type="checkbox"/> EDD Format	
<input type="checkbox"/> 2 Day EMERGENCY			<input type="checkbox"/> MA MCP	<input type="checkbox"/> Other	
<input type="checkbox"/> 1 Day EMERGENCY			Commercial "A" = Results Only Commercial "B" = Results + QC Summary		
Emergency & Rush T/A data available VIA Lablink					

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: <b>1 T. Wills</b>	Date Time: <b>3-4-14/15:40</b>	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time: <b>9:30</b>	Received By: <b>CHICAGO SC</b>
Relinquished by Sampler: <b>3</b>	Date Time:	Received By: <b>3</b>	Relinquished By: <b>4</b>	Date Time:	Received By:
Relinquished by: <b>5</b>	Date Time:	Received By: <b>5</b>	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact	On ice <input type="checkbox"/> Cooler Temp.

5.1 5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15815 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.338772246 Longitude: -88.506591963  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.338772246 Longitude: -88.506591963

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION VL5-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-29. SEE FIGURE 3-6 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28686

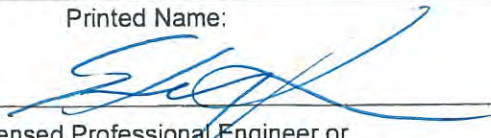
**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



P.E. or L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-29**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL5-1(0.5-1.5)-030314	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/3/2014	
Location ID	VL5-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	2	30
Methylene chloride	1.5 J	20
Toluene	1.9 J	12000
Xylene (Total)	0.9 J	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)anthracene	73.3 J	900 / 1100 / 1800
Benzo(a)pyrene	114 J	90 / 1300 / 2100
Benzo(b)fluoranthene	110 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	150 J	2300000
Chrysene	108 J	88000
Fluoranthene	182 J	3100000
Pyrene	150 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	4.3	11.3 / 13
Barium, Total	22.1	1500
Beryllium, Total	0.15 J	22
Cadmium, Total	0.18 J	5.2
Calcium, Total	111000	---
Chromium, Total	17.7 J	21
Cobalt, Total	3.3 J	20
Copper, Total	14.3	2900
Iron, Total	11400 J	15000 / 15900
Lead, Total	94.2	107
Magnesium, Total	55700	325000
Manganese, Total	294 J	630 / 636
Mercury, Total	0.025 J	0.89
Nickel, Total	8.8	100
Potassium, Total	518	---
Silver, Total	0.28 J	4.4
Sodium, Total	1870	---
Thallium, Total	0.26 J	2.6
Vanadium, Total	15.7 J	550
Zinc, Total	58.7 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0035 J	0.05
Barium, TCLP	0.54	2
Cadmium, TCLP	0.0065	0.005
Chromium, TCLP	0.0024 J	0.1
Cobalt, TCLP	0.03 J	1
Copper, TCLP	0.0098 J	0.65
Iron, TCLP	1.4	5
Lead, TCLP	0.21	0.0075
Manganese, TCLP	3.9	0.15
Nickel, TCLP	0.038 J	0.1
Selenium, TCLP	0.0086 J	0.05
Zinc, TCLP	0.54	5

**Summary Table of ISGS Site No. 2792-29**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL5-1(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	
Location ID	VL5-1	
Depth	0.5 - 1.5	
Parameter		
SPLP Metals (mg/l)		
Arsenic, SPLP	0.0056 J	0.05
Barium, SPLP	0.15 J	2
Beryllium, SPLP	0.0004 J	0.004
Chromium, SPLP	0.039 J	0.1
Cobalt, SPLP	0.0041 J	1
Copper, SPLP	0.037 J	0.65
Iron, SPLP	14	5
Lead, SPLP	0.25	0.0075
Manganese, SPLP	0.24	0.15
Nickel, SPLP	0.015 J	0.1
Zinc, SPLP	0.23	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28686

Sampling Dates: 03/03/14 - 03/04/14

Report to:

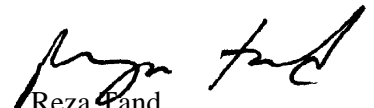
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **316**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28686-3	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63681.D	1	03/10/14	KD	n/a	n/a	MSM2232
Run #2 <sup>a</sup>	M63731.D	1	03/11/14	KD	n/a	n/a	MSM2234

Run #	Initial Weight	Final Volume
Run #1	5.50 g	5.0 ml
Run #2	5.44 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/kg	
71-43-2	Benzene	2.0	0.50	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.76	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.45	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.69	ug/kg	
591-78-6	2-Hexanone	ND	10	0.76	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.54	ug/kg	
75-09-2	Methylene chloride	1.5	2.0	0.53	ug/kg	J
100-42-5	Styrene	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	1.9	5.0	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	0.90	2.0	0.22	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%	89%	70-130%
2037-26-5	Toluene-D8	90%	92%	70-130%
460-00-4	4-Bromofluorobenzene	104%	115%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	38	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	28	ug/kg	JN
1191-96-4	Cyclopropane, ethyl-	7.84	12	ug/kg	JN
110-54-3	Hexane	8.46	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.8	ug/kg	JN
110-82-7	Cyclohexane	9.92	8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.1	ug/kg	JN
	Total TIC, Volatile		115.9	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
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## Report of Analysis

<b>Client Sample ID:</b>	VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28686-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71705.D	5	03/11/14	KR	03/05/14	OP37064	MSF3193
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	68	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	670	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	72	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	67	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	66	ug/kg	
83-32-9	Acenaphthene	ND	540	72	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	73.3	540	69	ug/kg	J
50-32-8	Benzo(a)pyrene	114	540	58	ug/kg	J
205-99-2	Benzo(b)fluoranthene	110	540	67	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	150	540	54	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	540	81	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	68	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	73	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	67	ug/kg	
86-74-8	Carbazole	ND	540	63	ug/kg	
218-01-9	Chrysene	108	540	67	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	63	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	82	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	96	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	82	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28686-3	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	77	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	67	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	64	ug/kg	
132-64-9	Dibenzofuran	ND	540	74	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	67	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	78	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	50	ug/kg	
206-44-0	Fluoranthene	182	540	74	ug/kg	J
86-73-7	Fluorene	ND	540	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	84	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	670	ug/kg	
67-72-1	Hexachloroethane	ND	1300	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	59	ug/kg	
78-59-1	Isophorone	ND	1300	62	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	68	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	67	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	67	ug/kg	
91-20-3	Naphthalene	ND	540	86	ug/kg	
98-95-3	Nitrobenzene	ND	1300	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	81	ug/kg	
85-01-8	Phenanthrene	ND	540	73	ug/kg	
129-00-0	Pyrene	150	540	63	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1300	74	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		30-130%
4165-62-2	Phenol-d5	52%		30-130%
118-79-6	2,4,6-Tribromophenol	53%		30-130%
4165-60-0	Nitrobenzene-d5	42%		30-130%
321-60-8	2-Fluorobiphenyl	55%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	59%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	3.02	15000	ug/kg	JN
98-82-8	Benzene, (1-methylethyl)-	3.62	4300	ug/kg	JN
	Total TIC, Semi-Volatile		19300	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
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# Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.3	0.88	0.18	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	22.1	4.4	0.064	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.15 B	0.35	0.021	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.18 B	0.35	0.037	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	111000	4400	55	mg/kg	10	03/07/14	03/11/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	17.7	0.88	0.083	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.3 B	4.4	0.041	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.3	2.2	0.49	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11400	8.8	0.76	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	94.2	0.88	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	55700	440	4.5	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	294	1.3	0.035	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.025 B	0.035	0.0076	mg/kg	1	03/11/14	03/12/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	8.8	3.5	0.039	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	518	440	7.5	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.88	0.30	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.28 B	0.44	0.11	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1870	440	2.9	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.26 B	0.88	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.7	0.88	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	58.7	1.8	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16844
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22609
- (5) Prep QC Batch: MP22636

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
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## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.3		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

4.7  
4



## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28686-3A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.3
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0035 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.54	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0065	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0024 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.030 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0098 B			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	1.4			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.21	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	3.9			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.038 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0086 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.54			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0056 B		0.010	0.0029	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.15 B		0.50	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00040 B		0.0040	0.00025	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.039		0.010	0.0014	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0041 B		0.050	0.00040	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.037		0.025	0.0070	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Iron	14.0		0.10	0.020	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.25		0.010	0.0017	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.24		0.015	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.015 B		0.040	0.00057	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.23		0.10	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

15000 block of US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.338772246 Longitude: -88.506591963  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.338772246 Longitude: -88.506591963

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION VL5-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-30. SEE FIGURE 3-6 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28686

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

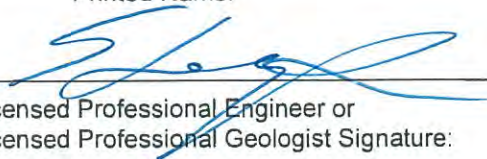
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14  
Date:



**Summary Table of ISGS Site No. 2792-30**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL5-1(0.5-1.5)-030314	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/3/2014	
Location ID	VL5-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	2	30
Methylene chloride	1.5 J	20
Toluene	1.9 J	12000
Xylene (Total)	0.9 J	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)anthracene	73.3 J	900 / 1100 / 1800
Benzo(a)pyrene	114 J	90 / 1300 / 2100
Benzo(b)fluoranthene	110 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	150 J	2300000
Chrysene	108 J	88000
Fluoranthene	182 J	3100000
Pyrene	150 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	4.3	11.3 / 13
Barium, Total	22.1	1500
Beryllium, Total	0.15 J	22
Cadmium, Total	0.18 J	5.2
Calcium, Total	111000	---
Chromium, Total	17.7 J	21
Cobalt, Total	3.3 J	20
Copper, Total	14.3	2900
Iron, Total	11400 J	15000 / 15900
Lead, Total	94.2	107
Magnesium, Total	55700	325000
Manganese, Total	294 J	630 / 636
Mercury, Total	0.025 J	0.89
Nickel, Total	8.8	100
Potassium, Total	518	---
Silver, Total	0.28 J	4.4
Sodium, Total	1870	---
Thallium, Total	0.26 J	2.6
Vanadium, Total	15.7 J	550
Zinc, Total	58.7 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0035 J	0.05
Barium, TCLP	0.54	2
Cadmium, TCLP	0.0065	0.005
Chromium, TCLP	0.0024 J	0.1
Cobalt, TCLP	0.03 J	1
Copper, TCLP	0.0098 J	0.65
Iron, TCLP	1.4	5
Lead, TCLP	0.21	0.0075
Manganese, TCLP	3.9	0.15
Nickel, TCLP	0.038 J	0.1
Selenium, TCLP	0.0086 J	0.05
Zinc, TCLP	0.54	5

**Summary Table of ISGS Site No. 2792-30**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL5-1(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	
Location ID	VL5-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.0056 J	0.05
Barium, SPLP	0.15 J	2
Beryllium, SPLP	0.0004 J	0.004
Chromium, SPLP	0.039 J	0.1
Cobalt, SPLP	0.0041 J	1
Copper, SPLP	0.037 J	0.65
Iron, SPLP	14	5
Lead, SPLP	0.25	0.0075
Manganese, SPLP	0.24	0.15
Nickel, SPLP	0.015 J	0.1
Zinc, SPLP	0.23	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28686

Sampling Dates: 03/03/14 - 03/04/14

Report to:

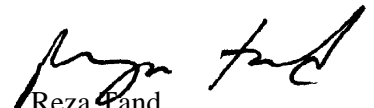
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **316**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28686-3	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63681.D	1	03/10/14	KD	n/a	n/a	MSM2232
Run #2 <sup>a</sup>	M63731.D	1	03/11/14	KD	n/a	n/a	MSM2234

Run #	Initial Weight	Final Volume
Run #1	5.50 g	5.0 ml
Run #2	5.44 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/kg	
71-43-2	Benzene	2.0	0.50	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.76	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.45	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.69	ug/kg	
591-78-6	2-Hexanone	ND	10	0.76	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.54	ug/kg	
75-09-2	Methylene chloride	1.5	2.0	0.53	ug/kg	J
100-42-5	Styrene	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	1.9	5.0	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	0.90	2.0	0.22	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%	89%	70-130%
2037-26-5	Toluene-D8	90%	92%	70-130%
460-00-4	4-Bromofluorobenzene	104%	115%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	38	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	28	ug/kg	JN
1191-96-4	Cyclopropane, ethyl-	7.84	12	ug/kg	JN
110-54-3	Hexane	8.46	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.8	ug/kg	JN
110-82-7	Cyclohexane	9.92	8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.1	ug/kg	JN
	Total TIC, Volatile		115.9	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28686-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71705.D	5	03/11/14	KR	03/05/14	OP37064	MSF3193
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	68	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	670	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	72	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	67	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	66	ug/kg	
83-32-9	Acenaphthene	ND	540	72	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	73.3	540	69	ug/kg	J
50-32-8	Benzo(a)pyrene	114	540	58	ug/kg	J
205-99-2	Benzo(b)fluoranthene	110	540	67	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	150	540	54	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	540	81	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	68	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	73	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	67	ug/kg	
86-74-8	Carbazole	ND	540	63	ug/kg	
218-01-9	Chrysene	108	540	67	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	63	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	82	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	96	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	82	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28686-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	77	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	67	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	64	ug/kg	
132-64-9	Dibenzofuran	ND	540	74	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	67	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	78	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	50	ug/kg	
206-44-0	Fluoranthene	182	540	74	ug/kg	J
86-73-7	Fluorene	ND	540	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	84	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	670	ug/kg	
67-72-1	Hexachloroethane	ND	1300	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	59	ug/kg	
78-59-1	Isophorone	ND	1300	62	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	68	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	67	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	67	ug/kg	
91-20-3	Naphthalene	ND	540	86	ug/kg	
98-95-3	Nitrobenzene	ND	1300	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	81	ug/kg	
85-01-8	Phenanthrene	ND	540	73	ug/kg	
129-00-0	Pyrene	150	540	63	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1300	74	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		30-130%
4165-62-2	Phenol-d5	52%		30-130%
118-79-6	2,4,6-Tribromophenol	53%		30-130%
4165-60-0	Nitrobenzene-d5	42%		30-130%
321-60-8	2-Fluorobiphenyl	55%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28686-3	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	59%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	3.02	15000	ug/kg	JN
98-82-8	Benzene, (1-methylethyl)-	3.62	4300	ug/kg	JN
	Total TIC, Semi-Volatile		19300	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
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# Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.3	0.88	0.18	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	22.1	4.4	0.064	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.15 B	0.35	0.021	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.18 B	0.35	0.037	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	111000	4400	55	mg/kg	10	03/07/14	03/11/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	17.7	0.88	0.083	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.3 B	4.4	0.041	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.3	2.2	0.49	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11400	8.8	0.76	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	94.2	0.88	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	55700	440	4.5	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	294	1.3	0.035	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.025 B	0.035	0.0076	mg/kg	1	03/11/14	03/12/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	8.8	3.5	0.039	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	518	440	7.5	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.88	0.30	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.28 B	0.44	0.11	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1870	440	2.9	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.26 B	0.88	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.7	0.88	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	58.7	1.8	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16844
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22609
- (5) Prep QC Batch: MP22636

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
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## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.3		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

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# Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0035 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.54	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0065	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0024 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.030 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0098 B			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	1.4			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.21	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	3.9			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.038 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0086 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.54			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL5-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28686-3B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0056 B		0.010	0.0029	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.15 B		0.50	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00040 B		0.0040	0.00025	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.039		0.010	0.0014	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0041 B		0.050	0.00040	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.037		0.025	0.0070	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Iron	14.0		0.10	0.020	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.25		0.010	0.0017	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.24		0.015	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.015 B		0.040	0.00057	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.23		0.10	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking # Accutest Quote #		Bottle Order Control # Accutest Job # <b>MC28686</b>									
<b>Client / Reporting Information</b> Company Name: <b>Weston Solutions</b> Street Address: <b>750 E. Buncker Ct Ste 500</b> City: <b>Warren Hills IL</b> State: <b>IL</b> Zip: <b>60061</b> Project Contact: <b>S. Baburamkumar</b> E-mail: <b>T.L.Walks</b> Phone #: <b>847-918-4018</b> Fax #: <b>-4055</b> Project Manager: <b>Matt Maxwell</b> Phone #: <b>847-918-4130</b>		<b>Project Information</b> Project Name: <b>IDOT - 048 McHenry County</b> Street: _____ City: _____ State: _____ Zip: _____ Billing Information (if different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Attention: _____ PC#: _____									
<b>Requested Analysis (see TEST CODE sheet)</b> VXS SNOCs Total Metals TCLP / SPLP metals PH		<b>Matrix Codes</b> DIW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment CI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
Accutest Sample # <b>MC28686</b>	Field ID / Point of Collection <b>MEOHDI</b>	MEOHDI Vial # <b>1</b>	Date <b>3-3-14</b>	Time <b>1405</b>	Sampled by <b>TW</b>	Matrix <b>SO</b>	# of bottles <b>3</b>	Number of preserved bottles HCL NACN NH <sub>4</sub> OH HNO <sub>3</sub> H <sub>2</sub> SO <sub>4</sub> NONE DI Water MECH ENCORE Blankline	Analysis Results X X X X X	LAB USE ONLY	
-1	RE4-1(0.5-1.5)-030314		3-3-14	1405	TW	SO	3		X X X X X		
-2	RE4-2(0.5-1.5)-030314			1415					X X X X X		
-3	VL5-1(0.5-1.5)-030314			1425					X X X X X		
-4	RE7-1(0.5-1.5)-030314			1435					X X X X X		
-5	RE7-2(0.5-1.5)-030314			1455					X X X X X		
-6	RE7-2(0.5-1.5)-030314D		3-3-14	1455					X X X X X		
-7	AL3-22(0.5-1.5)-030414		3-4-14	0755					X X X X X		
-8	AL3-24(0.5-1.5)-030414			0805					X X X X X		
-9	AL3-26(0.5-1.5)-030414			0820					X X X X X		
-10	AL3-27(0.5-1.5)-030414			0835					X X X X X		
-11	VL6-1(0.5-1.5)-030414			0905					X X X X X		
-12	VL6-2(0.5-1.5)-030414		3-4-14	0915	TW	SO	3		X X X X X		
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM) / Date: _____		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____		Comments / Special Instructions <b>Loc 14E, 6F1</b>			
Sample Custody must be documented below each time samples change possession, including courier delivery.										<b>CHICAGO SC</b>	
Relinquished by Sampler: <b>1 T. Walks</b>	Date Time: <b>3-4-14/15:10</b>	Received By: <b>3/4/14 15:40</b>	Relinquished By: <b>Feck</b>	Date Time: <b>3/5/14 9:30</b>	Received By: <b>2 Wilcher</b>						
Relinquished by Sampler: <b>3</b>	Date Time: <b>3</b>	Received By: <b>3</b>	Relinquished By: <b>4</b>	Date Time: <b>4</b>	Received By: <b>4</b>						
Relinquished by: <b>5</b>	Date Time: <b>5</b>	Received By: <b>5</b>	Custody Seal # <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input type="checkbox"/>	On Ice <input checked="" type="checkbox"/>	Cooler Temp. <b>1.2°C</b>					

5.1 5

Client / Reporting Information Company Name: <b>Weston Solutions</b> Street Address: <b>750 E. Buncker Ct Ste 500</b> City: <b>Newton Hills IL</b> Zip: <b>60061</b> Project Contact: <b>S. Babusankumar</b> Phone #: <b>847-918-4018</b> Fax #: <b>-4055</b> Sampler(s) Name(s): <b>T. W. Hs</b> Phone #: <b>847-918-4130</b>		Project Information Project Name: <b>IDOT-048 McHenry County</b> Street: _____ Billing Information (if different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Client PO# _____ Project Manager: <b>Matt Morvell</b> Attention: _____ PO# _____		Requested Analysis (see TEST CODE sheet) Matrix Codes DW - Drinking Water GW - Ground Water WW - Waste SW - Surface Water SP - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank															
Accutest Job #: <b>MC28686</b>		Matrix Codes (Vertical Labels): <b>VOC's</b> <b>SVOC's</b> <b>Total Metals</b> <b>TCLP/SLP Methods</b> <b>pH</b>																	
Samples # <b>13</b> <b>14</b> <b>15</b> <b>16</b> <b>17</b> <b>18</b> <b>19</b> <b>20</b>	Field ID / Point of Collection <b>VL6-3(0.5-1.5)-030414</b> <b>RS2-1(0.5-1.5)-030414</b> <b>RS3-1(0.5-1.5)-030414</b> <b>AL3-9(0.5-1.5)-030414</b> <b>AL3-11(0.5-1.5)-030414</b> <b>AL3-11(0.5-1.5)-030414D</b> <b>HV-1(0.5-1.5)-030414</b> <b>VL7-1(0.5-1.5)-030414</b>	MECHDI Viol #       	Date <b>3-4-14</b>      <b>3-4-14</b>	Time <b>0925</b>   <b>1020</b> <b>1035</b> <b>1050</b> <b>1105</b>	Sampled by <b>TW</b>      <b>TW</b>	Matrix <b>SO</b>      <b>SO</b>	# of bottles <b>3</b>      <b>3</b>	HCl       	NH3       	NH4       	H2PO4       	NONE       	DI Water       	MECH       	ENCORE       	Biocide       	LAB USE ONLY       		
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Approved By (Accutest PM): / Date: _____													Data Deliverable Information <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary					Comments / Special Instructions    	
Sample Custody must be documented below each time samples change possession, including courier delivery.																			
Relinquished by Sampler: <b>7. Chisholm</b>		Date Time: <b>3-4-14/15:10</b>		Received By: <b>[Signature]</b>		Date Time: <b>3/4/14 15:10</b>		Relinquished By: <b>FOA</b>		Date Time: <b>9:30</b>		Received By: <b>will chis</b>							
Relinquished by Sampler: <b>3</b>		Date Time:  		Received By: <b>3</b>		Date Time:  		Relinquished By:  		Date Time:  		Received By:  							
Relinquished by: <b>5</b>		Date Time:  		Received By:  		Date Time:  		Relinquished By:  		Date Time:  		Received By:  							
Custody Seal # _____								<input type="checkbox"/> Intact <input type="checkbox"/> Not intact		Preserved where applicable <input type="checkbox"/>		<input type="checkbox"/> On ice <input type="checkbox"/> Cooler Temp.							

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15000 block of US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.338680911 Longitude: -88.500666200  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.338680911 Longitude: -88.500666200

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS VL6-2 AND VL6-3 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-32. SEE FIGURE 3-6 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28686

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

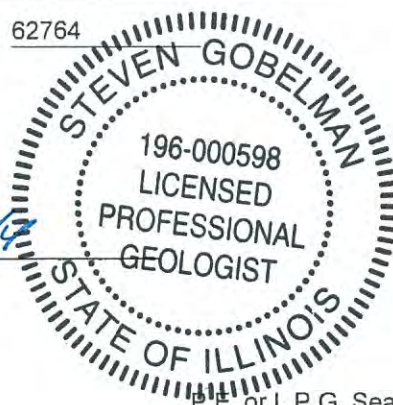
Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



P.E. or L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-32**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL6-2(0.5-1.5)-030414	VL6-3(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	
Location ID	VL6-2	VL6-3	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.1	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Acetone	122	114	25000
Benzene	0.79	0.84	30
Carbon disulfide	0.99 J	1.1 J	9000
Methyl ethyl ketone	ND	19.6	17000
Methylene chloride	2 J	0.98 J	20
Toluene	0.82 J	0.92 J	12000
Xylene (Total)	ND	0.76 J	5600
<b>SVOCs (ug/kg)</b>			
Benzo(a)anthracene	ND	14.9 J	900 / 1100 / 1800
Benzo(a)pyrene	ND	13.2 J	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	14 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	15.4 J	2300000
bis(2-Ethylhexyl)phthalate	19.5 J	23.3 J	46000
Chrysene	ND	24.3 J	88000
Fluoranthene	ND	17 J	3100000
Pyrene	ND	22 J	2300000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	5.7	6.2	11.3 / 13
Barium, Total	70.1	73.5	1500
Beryllium, Total	0.37	0.37	22
Cadmium, Total	0.09 J	0.16 J	5.2
Calcium, Total	41600	31100	---
Chromium, Total	12.3 J	13.7 J	21
Cobalt, Total	6.1	6	20
Copper, Total	14	12.7	2900
Iron, Total	13700 J	13700 J	15000 / 15900
Lead, Total	9.2	16.4	107
Magnesium, Total	25200	18200	325000
Manganese, Total	470 J	514 J	630 / 636
Mercury, Total	0.012 J	0.017 J	0.89
Nickel, Total	13.5	12.8	100
Potassium, Total	864	818	---
Selenium, Total	ND	0.33 J	1.3
Silver, Total	0.4 J	0.37 J	4.4
Sodium, Total	2090	1740	---
Thallium, Total	0.26 J	0.31 J	2.6
Vanadium, Total	24.5 J	26.4 J	550
Zinc, Total	43.2 J	43.2 J	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	0.0055 J	0.0063 J	0.05
Barium, TCLP	1.1	0.98	2
Cadmium, TCLP	0.0016 J	0.002 J	0.005
Cobalt, TCLP	0.031 J	0.03 J	1
Copper, TCLP	0.0075 J	0.0087 J	0.65
Iron, TCLP	0.36	0.53	5
Lead, TCLP	0.0018 J	0.0036 J	0.0075
Manganese, TCLP	11.4	12.4	0.15
Nickel, TCLP	0.025 J	0.031 J	0.1
Selenium, TCLP	0.01 J	0.0073 J	0.05
Zinc, TCLP	0.094 J	0.053 J	5

**Summary Table of ISGS Site No. 2792-32**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL6-2(0.5-1.5)-030414	VL6-3(0.5-1.5)-030414	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	3/4/2014	
Location ID	VL6-2	VL6-3	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.048	0.059	0.05
Barium, SPLP	1.1 J	1.1 J	2
Beryllium, SPLP	0.0046	0.005	0.004
Cadmium, SPLP	0.0005 J	ND	0.005
Chromium, SPLP	0.099 J	0.12 J	0.1
Cobalt, SPLP	0.055	0.053	1
Copper, SPLP	0.19 J	0.2 J	0.65
Iron, SPLP	119	141	5
Lead, SPLP	0.12	0.19	0.0075
Manganese, SPLP	2.7	3.2	0.15
Mercury, SPLP	0.00036	0.00033	0.002
Nickel, SPLP	0.13	0.15	0.1
Selenium, SPLP	0.006 J	0.006 J	0.05
Zinc, SPLP	0.44	0.47	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28686

Sampling Dates: 03/03/14 - 03/04/14

Report to:

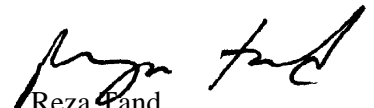
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **316**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> VL6-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.2
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63719.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.27 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	122	13	3.8	ug/kg	
71-43-2	Benzene	0.79	0.67	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.48	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.81	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.1	ug/kg	
75-15-0	Carbon disulfide	0.99	6.7	0.18	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.7	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.7	0.76	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.56	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.56	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.56	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.56	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.30	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.35	ug/kg	
100-41-4	Ethylbenzene	ND	2.7	0.93	ug/kg	
591-78-6	2-Hexanone	ND	13	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.7	0.72	ug/kg	
75-09-2	Methylene chloride	2.0	2.7	0.71	ug/kg	J
100-42-5	Styrene	ND	6.7	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.53	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	0.82	6.7	0.28	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b> VL6-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.2
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.77	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	ND	2.7	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.09	9.3	ug/kg	JN
	Total TIC, Volatile		9.3	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b> VL6-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28686-12	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 87.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71733.D	1	03/11/14	KR	03/05/14	OP37064	MSF3194
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	71	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL6-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-12	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	19.5	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	71%		30-130%
118-79-6	2,4,6-Tribromophenol	79%		30-130%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL6-2(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-12 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 87.2
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	81%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.61	5700	ug/kg JN
	Total TIC, Semi-Volatile		5700	ug/kg J

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> VL6-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.7	0.90	0.19	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	70.1	4.5	0.066	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.37	0.36	0.021	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.090 B	0.36	0.038	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	41600	450	5.7	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	12.3	0.90	0.086	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.1	4.5	0.042	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.0	2.3	0.50	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13700	9.0	0.79	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	9.2	0.90	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	25200	450	4.6	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	470	1.4	0.036	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.012 B	0.036	0.0079	mg/kg	1	03/11/14	03/12/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	13.5	3.6	0.040	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	864	450	7.7	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.40 B	0.45	0.11	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2090	450	3.0	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.26 B	0.90	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	24.5	0.90	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	43.2	1.8	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16844
- (3) Prep QC Batch: MP22609
- (4) Prep QC Batch: MP22636

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL6-2(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-12		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 87.2
<b>Project:</b> IDOT 048 - McHenry County, IL		

4.34  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.2		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/07/14	MA	SW846 9045D

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RL = Reporting Limit



# Report of Analysis

<b>Client Sample ID:</b> VL6-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-12A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0055 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	1.1	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0016 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.031 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0075 B			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.36			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0018 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	11.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.025 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.094 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL6-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-12B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.048		0.010	0.0029	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0046		0.0040	0.00025	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.099		0.010	0.0014	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.055		0.050	0.00040	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.19		0.025	0.0070	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Iron	119		0.10	0.020	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.7		0.015	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00036		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.13		0.040	0.00057	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0060 B		0.025	0.0048	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.44		0.10	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.36  
4

## Report of Analysis

<b>Client Sample ID:</b> VL6-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28686-13	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63720.D	1	03/11/14	KD	n/a	n/a	MSM2234

Run #1	Initial Weight	Final Volume
Run #2	5.11 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	114	11	3.1	ug/kg	
71-43-2	Benzene	0.84	0.55	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.66	ug/kg	
78-93-3	2-Butanone (MEK)	19.6	11	3.4	ug/kg	
75-15-0	Carbon disulfide	1.1	5.5	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.83	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.76	ug/kg	
591-78-6	2-Hexanone	ND	11	0.83	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.59	ug/kg	
75-09-2	Methylene chloride	0.98	2.2	0.58	ug/kg	J
100-42-5	Styrene	ND	5.5	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	0.92	5.5	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL6-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.63	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	0.76	2.2	0.24	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	11	ug/kg	JN
629-11-8	1,6-Hexanediol	7.84	5.3	ug/kg	JN
110-82-7	Cyclohexane	9.92	6.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.2	ug/kg	JN
	Total TIC, Volatile		28.9	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b>	VL6-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-13	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71734.D	1	03/11/14	KR	03/05/14	OP37064	MSF3194
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	14.9	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	13.2	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	14.0	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	15.4	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	24.3	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> VL6-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-13 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.9
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	76%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.61	5500	ug/kg	JN
	Total TIC, Semi-Volatile		5500	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.37  
4

# Report of Analysis

<b>Client Sample ID:</b> VL6-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.2	0.90	0.19	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	73.5	4.5	0.065	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.37	0.36	0.021	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.16 B	0.36	0.038	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	31100	450	5.7	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	13.7	0.90	0.085	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.0	4.5	0.042	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	12.7	2.2	0.50	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13700	9.0	0.78	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	16.4	0.90	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	18200	450	4.6	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	514	1.3	0.036	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.017 B	0.036	0.0080	mg/kg	1	03/11/14	03/12/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.8	3.6	0.040	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	818	450	7.7	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 B	0.90	0.31	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.37 B	0.45	0.11	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1740	450	3.0	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.31 B	0.90	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	26.4	0.90	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	43.2	1.8	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16844
- (3) Prep QC Batch: MP22609
- (4) Prep QC Batch: MP22636

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> VL6-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-13 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.9
---	--

4.37  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.9		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.4		su	1	03/07/14	MA	SW846 9045D

---

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> VL6-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-13A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0063 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.98	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0020 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.030 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0087 B			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.53			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0036 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	12.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.031 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0073 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.053 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL6-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-13B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.059		0.010	0.0029	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0050		0.0040	0.00025	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.053		0.050	0.00040	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.20		0.025	0.0070	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Iron	141		0.10	0.020	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.19		0.010	0.0017	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.2		0.015	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00033		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.15		0.040	0.00057	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0060 B		0.025	0.0048	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.47		0.10	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28686</b>

Client / Reporting Information		Project Information				Requested Analysis (see TEST CODE sheet)													Matrix Codes										
Company Name <b>Western Solutions</b>		Project Name <b>IDOT - 048 McHenry County</b>				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           VXS SNOCS Total Metals TCRP / SPLP Metals PH         </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           D17 - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SE0 - Sediment CI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank         </div> </div>													LAB USE ONLY										
Street Address <b>750 E. Bunker Ct Ste 500</b>		Street		Billing Information (if different from Report to)																									
City State Zip <b>Warren Hills IL 60061</b>		City		Company Name																									
Project Contact <b>S. Babusikumar</b>		Project#		Street Address																									
Phone # Fax # <b>847-918-4018 -4055</b>		Client POB		City State Zip																									
Sampler(s) Name(s) Phone # <b>T. Walls 847-918-4130</b>		Project Manager <b>Matt Maxwell</b>		Attention: PC#																									
Accutest Sample # <b>MC28686</b>	Field ID / Point of Collection	MEO/NDI Vial #	Collection Date Time		Sampled by	Matrix	# of bottles	NO2	NH3	NH4	HNO3	HNO2	HPO4	NO3	NO2	DI WASH	MECH	ENCORE	Biofilter	VXS	SNOCS	Total Metals	TCRP / SPLP Metals	PH	LAB USE ONLY				
-1	RE4-1(0.5-1.5)-030314		3-3-14	1405	TW	SO	3														X	X	X	X	X				
-2	RE4-2(0.5-1.5)-030314			1415																	X	X	X	X	X				
-3	VL5-1(0.5-1.5)-030314			1425																	X	X	X	X	X				
-4	RE7-1(0.5-1.5)-030314			1435																	X	X	X	X	X				
-5	RE7-2(0.5-1.5)-030314			1455																	X	X	X	X	X				
-6	RE7-2(0.5-1.5)-030314D		3-3-14	1455																	X	X	X	X	X				
-7	AL3-22(0.5-1.5)-030414		3-4-14	0755																	X	X	X	X	X				
-8	AL3-24(0.5-1.5)-030414			0805																	X	X	X	X	X				
-9	AL3-26(0.5-1.5)-030414			0820																	X	X	X	X	X				
-10	AL3-27(0.5-1.5)-030414			0835																	X	X	X	X	X				
-11	VL6-1(0.5-1.5)-030414			0405																	X	X	X	X	X				
-12	VL6-2(0.5-1.5)-030414		3-4-14	0915	TW	SO	3														X	X	X	X	X				
Turnaround Time ( Business days)													Data Deliverable Information													Comments / Special Instructions			
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>													<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>													Loc 14E, 6F1			
Sample Custody must be documented below each time samples change possession, including courier delivery.													CHICAGO SC																
Relinquished by Sampler:		Date Time:		Received By:		Relinquished By:		Date Time:		Received By:		Relinquished by:		Date Time:		Received By:		Relinquished by:		Date Time:		Received By:		Relinquished by:		Date Time:		Received By:	
1 <b>T. Walls</b>		3-4-14/1510		<b>Matthew Maxwell</b>		3/4/14 15:40		<b>Felix</b>		3/5/14 9:30		2 <b>Will Chen</b>						3						4					
Custody Seal #													<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/>													On Ice	Cooler Temp.		
5																										E	1.2 0.9°C		

Client / Reporting Information		Project Information						Requested Analysis ( see TEST CODE sheet)										Matrix Codes
Company Name <i>Weston Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>																DW - Drinking Water GW - Ground Water WW - Waste SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <i>750 E. Bunken Ct Ste 500</i>		Street:																
City State Zip <i>Newton Hills IL 60061</i>		City: State: Zip:																
Project Contact <i>S. Babusankumar</i>		Project#:																
Phone # Fax # <i>847-918-4018 -4055</i>		Client PO#:																
Sampler(s) Name(s) Phone # <i>T. W. Hs 847-918-4130</i>		Project Manager <i>Matt Morvelli</i>																
Accutest Job # <i>MC28686</i>																		
Accutest Sample #	Field ID / Point of Collection	MECHDI Viol #	Date	Time	Sampled by	Matrix	# of bottles	NCI	NCBH	NCBS	NCBCH	NONE	D/W/MT	MEQH	ENGCHE	Biosafe	LAB USE ONLY	
-13	VL6-3(0.5-1.5)-030414		3-4-14	0925	TW	SO	3											
-14	BS2-1(0.5-1.5)-030414			0935														
-15	RS3-1(0.5-1.5)-030414			0945														
-16	AL3-9(0.5-1.5)-030414			1020														
-17	AL3-11(0.5-1.5)-030414			1035														
-18	AL3-11(0.5-1.5)-030414D			1035														
-19	HV-1(0.5-1.5)-030414			1050														
-20	VL7-1(0.5-1.5)-030414		3-4-14	1105	TW	SO	3											
Data Deliverable Information																	Comments / Special Instructions	
Turnaround Time ( Business days)		Approved By (Accutest PM): / Date:						<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary										
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink																		
Sample Custody must be documented below each time samples change possession, including courier delivery.																	CHICAGO SC	
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:													
1 <i>7. Chisholm</i>	3-4-14/15:10	1 <i>[Signature]</i>	2 <i>FEA</i>	9:30	2 <i>will del</i>													
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:													
3		3	4		4													
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/>	On Ice <input type="checkbox"/>	Cooler Temp. <input type="checkbox"/>											
5		5																

5.1 5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

12000 to 15000 blocks of US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.295606805 Longitude: -88.436014143

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.295606805 Longitude: -88.436014143

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS 35-3, 35-5, AND CB2-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-35. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28684 AND MC28780

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

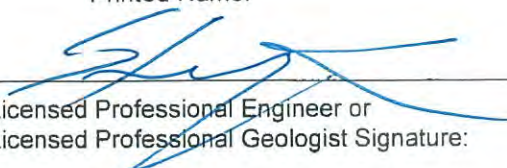
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
Date:



**Summary Table of ISGS Site No. 2792-35**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	35-3(0.5-1.5)-030314	35-5(0.5-1.5)-030314	CB2-2(0.5-1.5)-030714	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/7/2014	
Location ID	35-3	35-5	CB2-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.9	8.3	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Benzene	2.3	1.6	2	30
Carbon disulfide	0.81 J	ND	5.7 J	9000
Ethylbenzene	1.2 J	1 J	1.2 J	13000
Methylene chloride	1.5 J	1.4 J	ND	20
Toluene	5.1 J	3.7 J	4.8 J	12000
Xylene (Total)	2.9	2.3	2.9	5600
<b>SVOCs (ug/kg)</b>				
Fluoranthene	ND	ND	29.1 J	3100000
Pyrene	ND	ND	26.5 J	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	5.9	5.8	6.9	11.3 / 13
Barium, Total	21	27.2	56.5	1500
Beryllium, Total	0.14 J	0.21 J	0.4	22
Cadmium, Total	ND	0.045 J	0.098 J	5.2
Calcium, Total	90500 J	71100	35400	---
Chromium, Total	7.8	10.1	14.5	21
Cobalt, Total	4 J	4.5	6.9	20
Copper, Total	13.9	12.3	13.9	2900
Iron, Total	11000 J	12500	15100	15000 / 15900
Lead, Total	8.1	6.9	17.8	107
Magnesium, Total	43600 J	32300	20700	325000
Manganese, Total	315 J	351	515	630 / 636
Mercury, Total	ND	0.015 J	0.02 J	0.89
Nickel, Total	9.6	10.8	16.2	100
Potassium, Total	596 J	650 J	766	---
Silver, Total	0.31 J	0.41 J	0.13 J	4.4
Sodium, Total	319 J	748	1500	---
Thallium, Total	0.44 J	0.34 J	0.23 J	2.6
Vanadium, Total	18.9	21.8	26.6	550
Zinc, Total	32	37.7	41.2	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	ND	ND	0.0035 J	0.05
Barium, TCLP	0.19 J	0.22 J	0.43 J	2
Cadmium, TCLP	0.0008 J	0.0008 J	0.0022 J	0.005
Cobalt, TCLP	0.0048 J	0.0009 J	0.0024 J	1
Copper, TCLP	ND	ND	0.0097 J	0.65
Iron, TCLP	ND	ND	0.023 J	5
Lead, TCLP	ND	ND	0.0035 J	0.0075
Manganese, TCLP	1.5	1.2	2.2	0.15
Nickel, TCLP	0.02 J	0.013 J	0.024 J	0.1
Selenium, TCLP	0.01 J	0.0092 J	0.0062 J	0.05
Zinc, TCLP	0.012 J	0.013 J	0.021 J	5



**Summary Table of ISGS Site No. 2792-35**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	35-3(0.5-1.5)-030314	35-5(0.5-1.5)-030314	CB2-2(0.5-1.5)-030714	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/7/2014	
Location ID	35-3	35-5	CB2-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
SPLP Metals (mg/l)				
Arsenic, SPLP	ND	0.0065 J	0.083	0.05
Barium, SPLP	0.018 J	0.051 J	0.58	2
Beryllium, SPLP	ND	0.0003 J	0.0067	0.004
Cadmium, SPLP	ND	ND	0.0019 J	0.005
Chromium, SPLP	0.002 J	0.012 J	0.2	0.1
Cobalt, SPLP	ND	0.0024 J	0.057	1
Copper, SPLP	ND	0.012 J	0.22	0.65
Iron, SPLP	1.2 J	11.6 J	216	5
Lead, SPLP	ND	0.0046 J	0.27	0.0075
Manganese, SPLP	0.016	0.12	2.1	0.15
Mercury, SPLP	ND	ND	0.00058	0.002
Nickel, SPLP	0.0008 J	0.0086 J	0.2	0.1
Zinc, SPLP	0.012 J	0.056 J	0.66 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28684

Sampling Dates: 03/03/14 - 03/04/14

Report to:

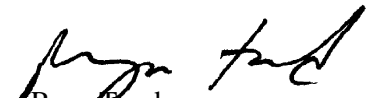
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **313**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	35-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-2	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63643.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	4.83 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.1	ug/kg	
71-43-2	Benzene	2.3	0.55	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.67	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	0.81	5.5	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.84	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.46	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	1.2	2.2	0.76	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.84	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.60	ug/kg	
75-09-2	Methylene chloride	1.5	2.2	0.59	ug/kg	J
100-42-5	Styrene	ND	5.5	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.35	ug/kg	
108-88-3	Toluene	5.1	5.5	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 35-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-2	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.63	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	2.9	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.48	13	ug/kg	JN
110-54-3	Hexane	8.46	9.2	ug/kg	JN
110-82-7	Cyclohexane	9.91	7.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	9.9	ug/kg	JN
	Total TIC, Volatile		39.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	35-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-2	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37338.D	5	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	59	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2600	66	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2600	75	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2600	430	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5200	650	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2600	330	ug/kg	
95-48-7	2-Methylphenol	ND	2600	100	ug/kg	
106-44-5	4-Methylphenol	ND	2600	130	ug/kg	
88-75-5	2-Nitrophenol	ND	2600	70	ug/kg	
100-02-7	4-Nitrophenol	ND	5200	490	ug/kg	
87-86-5	Pentachlorophenol	ND	2600	180	ug/kg	
108-95-2	Phenol	ND	1300	74	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2600	65	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2600	64	ug/kg	
83-32-9	Acenaphthene	ND	520	70	ug/kg	
208-96-8	Acenaphthylene	ND	520	52	ug/kg	
120-12-7	Anthracene	ND	520	63	ug/kg	
56-55-3	Benzo(a)anthracene	ND	520	67	ug/kg	
50-32-8	Benzo(a)pyrene	ND	520	56	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	520	65	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	520	52	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	520	79	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	66	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	53	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	71	ug/kg	
106-47-8	4-Chloroaniline	ND	2600	65	ug/kg	
86-74-8	Carbazole	ND	520	62	ug/kg	
218-01-9	Chrysene	ND	520	65	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	61	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	80	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	94	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	80	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	35-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-2	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	67	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	75	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	69	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2600	170	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2600	65	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	520	62	ug/kg	
132-64-9	Dibenzofuran	ND	520	72	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	41	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	65	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	75	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	48	ug/kg	
206-44-0	Fluoranthene	ND	520	71	ug/kg	
86-73-7	Fluorene	ND	520	69	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	82	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	76	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2600	650	ug/kg	
67-72-1	Hexachloroethane	ND	1300	63	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	520	58	ug/kg	
78-59-1	Isophorone	ND	1300	60	ug/kg	
91-57-6	2-Methylnaphthalene	ND	520	66	ug/kg	
88-74-4	2-Nitroaniline	ND	2600	65	ug/kg	
99-09-2	3-Nitroaniline	ND	2600	140	ug/kg	
100-01-6	4-Nitroaniline	ND	2600	65	ug/kg	
91-20-3	Naphthalene	ND	520	84	ug/kg	
98-95-3	Nitrobenzene	ND	1300	71	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	75	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	79	ug/kg	
85-01-8	Phenanthrene	ND	520	71	ug/kg	
129-00-0	Pyrene	ND	520	61	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	72	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	88%		30-130%
4165-62-2	Phenol-d5	83%		30-130%
118-79-6	2,4,6-Tribromophenol	124%		30-130%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	89%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 35-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-2 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 93.6
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	126%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6300	ug/kg JN
	Total TIC, Semi-Volatile		6300	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> 35-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-2	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.9	0.88	0.18	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	21.0	4.4	0.064	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.14 B	0.35	0.021	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	90500	4400	55	mg/kg	10	03/06/14	03/11/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	7.8	0.88	0.083	mg/kg	1	03/06/14	03/11/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.0 B	4.4	0.041	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.9	2.2	0.49	mg/kg	1	03/06/14	03/11/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Iron	11000	8.8	0.76	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.1	0.88	0.15	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	43600	440	4.5	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	315	1.3	0.035	mg/kg	1	03/06/14	03/11/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0073 U	0.033	0.0073	mg/kg	1	03/11/14	03/11/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	9.6	3.5	0.038	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	596	440	7.5	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.88	0.30	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.31 B	0.44	0.11	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	319 B	440	2.9	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.44 B	0.88	0.12	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.9	0.88	0.12	mg/kg	1	03/06/14	03/11/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Zinc	32.0	1.8	0.14	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22608
- (5) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> 35-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-2 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 93.6
---	--

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	93.6		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.9		su	1	03/06/14	MA	SW846 9045D

---

RL = Reporting Limit

4.4  
4

# Report of Analysis

<b>Client Sample ID:</b> 35-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-2A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.19 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0048 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.5			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.020 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.012 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> 35-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-2B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.018 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00025 U		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.0020 B		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.00040 U		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.0070 U		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	1.2		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.0017 U		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.016		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.00080 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.012 B		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22614
- (4) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b>	35-5(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63644.D	1	03/07/14	KD	n/a	n/a	MSM2231
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.77 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.6	2.7	ug/kg	
71-43-2	Benzene	1.6	0.48	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.58	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.6	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	4.8	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.8	0.72	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.40	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.40	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.40	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	1.0	1.9	0.66	ug/kg	J
591-78-6	2-Hexanone	ND	9.6	0.72	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.8	0.52	ug/kg	
75-09-2	Methylene chloride	1.4	1.9	0.51	ug/kg	J
100-42-5	Styrene	ND	4.8	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.38	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	3.7	4.8	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 35-5(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.55	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.87	ug/kg	
1330-20-7	Xylene (total)	2.3	1.9	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	25	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	14	ug/kg	JN
109-66-0	Pentane	6.49	12	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.1	ug/kg	JN
142-82-5	Heptane	10.51	5.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.9	ug/kg	JN
104-76-7	1-Hexanol, 2-ethyl-	15.81	7.1	ug/kg	JN
	Total TIC, Volatile		76.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b> 35-5(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-3	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37339.D	5	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	340	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	35-5(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	ND	550	75	ug/kg	
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	ND	550	75	ug/kg	
129-00-0	Pyrene	ND	550	65	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	87%		30-130%
4165-62-2	Phenol-d5	86%		30-130%
118-79-6	2,4,6-Tribromophenol	124%		30-130%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	92%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 35-5(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-3 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	128%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.69	6500	ug/kg	JN
	Total TIC, Semi-Volatile		6500	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4



# Report of Analysis

<b>Client Sample ID:</b> 35-5(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.8	0.90	0.19	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.2	4.5	0.065	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.21 B	0.36	0.021	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.045 B	0.36	0.038	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	71100	4500	56	mg/kg	10	03/06/14	03/11/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	10.1	0.90	0.085	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5	4.5	0.042	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	12.3	2.2	0.50	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12500	9.0	0.78	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	6.9	0.90	0.15	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	32300	450	4.6	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	351	1.3	0.036	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.033	0.0074	mg/kg	1	03/11/14	03/11/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	10.8	3.6	0.039	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	650	450	7.7	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.41 B	0.45	0.11	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	748	450	3.0	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.34 B	0.90	0.12	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	21.8	0.90	0.12	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	37.7	1.8	0.14	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22608
- (5) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
 4

## Report of Analysis

<b>Client Sample ID:</b> 35-5(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.6		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.3		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.7  
 4

## Report of Analysis

<b>Client Sample ID:</b> 35-5(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-3A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.22 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00090 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.2			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0092 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.8  
4

## Report of Analysis

<b>Client Sample ID:</b> 35-5(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-3B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0065 B		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.051 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00030 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.012		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0024 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.012 B		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	11.6		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.0046 B		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.12		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.0086 B		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.056 B		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Prep QC Batch: MP22614
- (4) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.9  
4





Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28780

Sampling Date: 03/07/14

Report to:

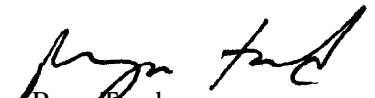
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **171**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-3	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63901.D	1	03/19/14	KD	n/a	n/a	MSM2241
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.00 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	4.0	ug/kg	
71-43-2	Benzene	2.0	0.71	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.8	0.30	ug/kg	
75-25-2	Bromoform	ND	2.8	0.50	ug/kg	
74-83-9	Bromomethane	ND	2.8	0.85	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.4	ug/kg	
75-15-0	Carbon disulfide	5.7	7.1	0.19	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.8	0.31	ug/kg	
108-90-7	Chlorobenzene	ND	2.8	0.22	ug/kg	
75-00-3	Chloroethane	ND	7.1	1.1	ug/kg	
67-66-3	Chloroform	ND	2.8	0.24	ug/kg	
74-87-3	Chloromethane	ND	7.1	0.80	ug/kg	
124-48-1	Dibromochloromethane	ND	2.8	0.46	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.8	0.38	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.8	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.8	0.59	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.8	0.64	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.8	0.59	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.8	0.59	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.8	0.60	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.8	0.32	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	0.37	ug/kg	
100-41-4	Ethylbenzene	1.2	2.8	0.98	ug/kg	J
591-78-6	2-Hexanone	ND	14	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.8	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.1	0.77	ug/kg	
75-09-2	Methylene chloride	2.2	2.8	0.75	ug/kg	JB
100-42-5	Styrene	ND	7.1	0.24	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.8	0.56	ug/kg	
127-18-4	Tetrachloroethene	ND	2.8	0.44	ug/kg	
108-88-3	Toluene	4.8	7.1	0.29	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.8	0.31	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.8	0.81	ug/kg	
79-01-6	Trichloroethene	ND	2.8	0.35	ug/kg	
75-01-4	Vinyl chloride	ND	2.8	1.3	ug/kg	
1330-20-7	Xylene (total)	2.9	2.8	0.31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	54	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.07	26	ug/kg	JN
109-66-0	Pentane	6.48	23	ug/kg	JN
	Unknown	7.83	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7.7	ug/kg	JN
110-54-3	Hexane	8.46	15	ug/kg	JN
110-82-7	Cyclohexane	9.91	8.1	ug/kg	JN
142-82-5	Heptane	10.51	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
103-65-1	Benzene, propyl-	15.14	11	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	15.24	35	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	15.41	34	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	15.81	71	ug/kg	JN
	Total TIC, Volatile		319.4	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	
<b>Lab Sample ID:</b> MC28780-3	<b>Date Sampled:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/08/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18172.D	1	03/13/14	KR	03/10/14	OP37118	MSW795
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	69	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	28	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-3	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	29.1	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	30	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	26.5	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	94%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5500	ug/kg JN
	Total TIC, Semi-Volatile		5500	ug/kg J

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4

# Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.9	0.89	0.19	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	56.5	4.5	0.065	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.40	0.36	0.021	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.098 B	0.36	0.038	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	35400	450	5.6	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	14.5	0.89	0.085	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.9	4.5	0.042	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	13.9	2.2	0.50	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	15100	8.9	0.78	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	17.8	0.89	0.15	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	20700	450	4.6	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	515	1.3	0.036	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.020 B	0.035	0.0078	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	16.2	3.6	0.039	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	766	450	7.7	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.13 B	0.45	0.11	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1500	450	3.0	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.23 B	0.89	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	26.6	0.89	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	41.2	1.8	0.14	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16890
- (3) Prep QC Batch: MP22658
- (4) Prep QC Batch: MP22697

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.1		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.7  
 4

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714 <b>Lab Sample ID:</b> MC28780-3A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/07/14 <b>Date Received:</b> 03/08/14 <b>Percent Solids:</b> 88.1
---	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0035 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.43 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0022 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0024 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0097 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.023 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0035 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.2			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.024 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0062 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.021 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.8  
4

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3B	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.083		0.010	0.0029	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.58		0.50	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0067		0.0040	0.00025	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0019 B		0.0040	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.20		0.010	0.0014	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.057		0.050	0.00040	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.22		0.025	0.0070	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Iron	216		0.10	0.020	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.27		0.010	0.0017	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.1		0.015	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00058		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.20		0.040	0.00057	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.66		0.10	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.9  
4







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15105 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.338386015 Longitude: -88.492575702  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.338386015 Longitude: -88.492575702

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION AL3-11 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-36. SEE FIGURE 3-7 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28686

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

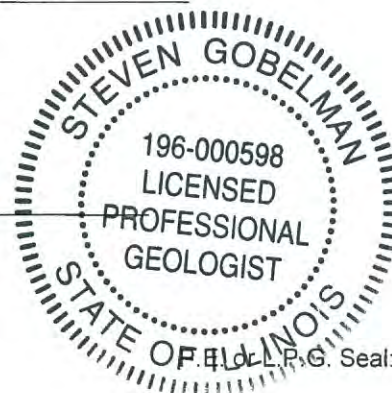
Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14  
Date:



**Summary Table of ISGS Site No. 2792-36**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL3-11(0.5-1.5)-030414	AL3-11(0.5-1.5)-030414D	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	3/4/2014	
Location ID	AL3-11	AL3-11	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.1	8.2	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	1.1	1.6	30
Ethylbenzene	ND	0.77 J	13000
Methylene chloride	0.94 J	1.2 J	20
Toluene	1.6 J	2.8 J	12000
Xylene (Total)	1.1 J	1.8 J	5600
<b>SVOCs (ug/kg)</b>	None Detected		
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	5.9	6.5	11.3 / 13
Barium, Total	55	48.1	1500
Beryllium, Total	0.33 J	0.32 J	22
Cadmium, Total	0.044 J	ND	5.2
Calcium, Total	69700	88900	---
Chromium, Total	12.5 J	13.5 J	21
Cobalt, Total	5	5.3	20
Copper, Total	16.2	13.1	2900
Iron, Total	12800	14000	15000 / 15900
Lead, Total	18.4	16.2	107
Magnesium, Total	34800	44500	325000
Manganese, Total	323 J	336 J	630 / 636
Mercury, Total	0.03 J	0.015 J	0.89
Nickel, Total	13.2	14.2	100
Potassium, Total	636	542	---
Sodium, Total	1700	1590	---
Vanadium, Total	25	26.8	550
Zinc, Total	31.5 J	32 J	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	0.0049 J	0.0031 J	0.05
Barium, TCLP	1	0.79	2
Cadmium, TCLP	0.0008 J	0.0009 J	0.005
Cobalt, TCLP	0.014 J	0.013 J	1
Iron, TCLP	0.6 J	0.3 J	5
Manganese, TCLP	5.1	5	0.15
Nickel, TCLP	0.017 J	0.016 J	0.1
Selenium, TCLP	0.0081 J	0.0085 J	0.05
Zinc, TCLP	0.02 J	0.016 J	5
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.069	0.048	0.05
Barium, SPLP	1.1 J	0.81 J	2
Beryllium, SPLP	0.0064	0.0042	0.004
Chromium, SPLP	0.14 J	0.097 J	0.1
Cobalt, SPLP	0.056	0.04 J	1
Copper, SPLP	0.17 J	0.13 J	0.65
Iron, SPLP	162	116	5
Lead, SPLP	0.15	0.11	0.0075
Manganese, SPLP	2.6	2.1	0.15
Mercury, SPLP	0.00045	0.00032	0.002
Nickel, SPLP	0.16	0.11	0.1
Selenium, SPLP	0.0058 J	ND	0.05
Zinc, SPLP	0.43	0.33	5

**Summary Table of ISGS Site No. 2792-36**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28686

Sampling Dates: 03/03/14 - 03/04/14

Report to:

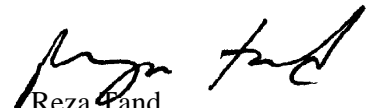
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **316**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28686-17	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63724.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.67 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.6	2.7	ug/kg	
71-43-2	Benzene	1.1	0.48	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.58	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.6	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	4.8	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.8	0.73	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.40	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.40	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.40	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	0.66	ug/kg	
591-78-6	2-Hexanone	ND	9.6	0.73	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.8	0.52	ug/kg	
75-09-2	Methylene chloride	0.94	1.9	0.51	ug/kg	J
100-42-5	Styrene	ND	4.8	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.38	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	1.6	4.8	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-17	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.55	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.87	ug/kg	
1330-20-7	Xylene (total)	1.1	1.9	0.21	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	AL3-11(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-17	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71738.D	5	03/11/14	KR	03/05/14	OP37064	MSF3194
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	60	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2600	67	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2600	76	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2600	430	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5300	660	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2600	330	ug/kg	
95-48-7	2-Methylphenol	ND	2600	100	ug/kg	
106-44-5	4-Methylphenol	ND	2600	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2600	70	ug/kg	
100-02-7	4-Nitrophenol	ND	5300	490	ug/kg	
87-86-5	Pentachlorophenol	ND	2600	190	ug/kg	
108-95-2	Phenol	ND	1300	75	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2600	66	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2600	65	ug/kg	
83-32-9	Acenaphthene	ND	530	71	ug/kg	
208-96-8	Acenaphthylene	ND	530	53	ug/kg	
120-12-7	Anthracene	ND	530	64	ug/kg	
56-55-3	Benzo(a)anthracene	ND	530	68	ug/kg	
50-32-8	Benzo(a)pyrene	ND	530	57	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	530	66	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	530	53	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	530	80	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	67	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	54	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	72	ug/kg	
106-47-8	4-Chloroaniline	ND	2600	66	ug/kg	
86-74-8	Carbazole	ND	530	62	ug/kg	
218-01-9	Chrysene	ND	530	66	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	62	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	80	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	95	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	81	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL3-11(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-17	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	68	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	76	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	70	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2600	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2600	66	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	530	63	ug/kg	
132-64-9	Dibenzofuran	ND	530	73	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	41	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	66	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	76	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	49	ug/kg	
206-44-0	Fluoranthene	ND	530	72	ug/kg	
86-73-7	Fluorene	ND	530	70	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	83	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	76	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2600	660	ug/kg	
67-72-1	Hexachloroethane	ND	1300	64	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	530	58	ug/kg	
78-59-1	Isophorone	ND	1300	61	ug/kg	
91-57-6	2-Methylnaphthalene	ND	530	67	ug/kg	
88-74-4	2-Nitroaniline	ND	2600	66	ug/kg	
99-09-2	3-Nitroaniline	ND	2600	140	ug/kg	
100-01-6	4-Nitroaniline	ND	2600	66	ug/kg	
91-20-3	Naphthalene	ND	530	85	ug/kg	
98-95-3	Nitrobenzene	ND	1300	71	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	76	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	80	ug/kg	
85-01-8	Phenanthrene	ND	530	71	ug/kg	
129-00-0	Pyrene	ND	530	62	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	73	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		30-130%
4165-62-2	Phenol-d5	51%		30-130%
118-79-6	2,4,6-Tribromophenol	51%		30-130%
4165-60-0	Nitrobenzene-d5	51%		30-130%
321-60-8	2-Fluorobiphenyl	61%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-17	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	60%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.61	5000	ug/kg JN
	Total TIC, Semi-Volatile		5000	ug/kg J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-17	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.9	0.87	0.18	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	55.0	4.4	0.063	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.33 B	0.35	0.021	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.044 B	0.35	0.037	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	69700	4400	55	mg/kg	10	03/07/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	12.5	0.87	0.083	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.0	4.4	0.041	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	16.2	2.2	0.48	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12800	8.7	0.76	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	18.4	0.87	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	34800	440	4.5	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	323	1.3	0.035	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.030 B	0.034	0.0075	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	13.2	3.5	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	636	440	7.5	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1700	440	2.9	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.87	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	25.0	0.87	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	31.5	1.7	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-17 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.8
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.8		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/07/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-17A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.8
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0049 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	1.0	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.014 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.60			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	5.1			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0081 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.020 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-17B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.069		0.010	0.0029	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0064		0.0040	0.00025	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.056		0.050	0.00040	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Iron	162		0.10	0.020	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.15		0.010	0.0017	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.6		0.015	0.00081	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00045		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.16		0.040	0.00057	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0058 B		0.025	0.0048	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.43		0.10	0.00050	mg/l	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414D	
<b>Lab Sample ID:</b> MC28686-18	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63727.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.57 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	1.6	0.51	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.1	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.77	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.27	ug/kg	
100-41-4	Ethylbenzene	0.77	2.0	0.70	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.55	ug/kg	
75-09-2	Methylene chloride	1.2	2.0	0.54	ug/kg	J
100-42-5	Styrene	ND	5.1	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	2.8	5.1	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-18	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.0
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.59	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.93	ug/kg	
1330-20-7	Xylene (total)	1.8	2.0	0.22	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	11	ug/kg	JN
109-66-0	Pentane	6.48	13	ug/kg	JN
110-54-3	Hexane	8.46	7.8	ug/kg	JN
	Unknown	11.17	5.6	ug/kg	JN
	Total TIC, Volatile		37.4	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.52  
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## Report of Analysis

<b>Client Sample ID:</b>	AL3-11(0.5-1.5)-030414D	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-18	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71739.D	5	03/12/14	KR	03/05/14	OP37064	MSF3194
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	67	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	60	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	84	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL3-11(0.5-1.5)-030414D	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-18	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	72	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	74	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	77	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	ND	550	76	ug/kg	
86-73-7	Fluorene	ND	550	74	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	87	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	89	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	84	ug/kg	
85-01-8	Phenanthrene	ND	550	75	ug/kg	
129-00-0	Pyrene	ND	550	65	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	61%		30-130%
4165-62-2	Phenol-d5	60%		30-130%
118-79-6	2,4,6-Tribromophenol	64%		30-130%
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414D <b>Lab Sample ID:</b> MC28686-18 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.0
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	66%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.61	5600	ug/kg	JN
	Total TIC, Semi-Volatile		5600	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-18	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.5	0.88	0.18	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	48.1	4.4	0.064	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.32 B	0.35	0.021	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	88900	4400	55	mg/kg	10	03/07/14	03/12/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	13.5	0.88	0.084	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.3	4.4	0.041	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.1	2.2	0.49	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14000	8.8	0.77	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	16.2	0.88	0.15	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	44500	440	4.5	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	336	1.3	0.035	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.034	0.0075	mg/kg	1	03/13/14	03/13/14 SA	SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	14.2	3.5	0.039	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	542	440	7.5	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1590	440	2.9	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.88	0.12	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	26.8	0.88	0.12	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	32.0	1.8	0.14	mg/kg	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-18	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.2		su	1	03/07/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-18A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0031 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.79	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.013 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.30			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	5.0			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0085 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.016 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL3-11(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-18B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.048		0.010	0.0029	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.81		0.50	0.00081	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.097		0.010	0.0014	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.040 B		0.050	0.00040	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Iron	116		0.10	0.020	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.1		0.015	0.00081	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00032		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.33		0.10	0.00050	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.54  
4



Client / Reporting Information		Project Information				Requested Analysis (see TEST CODE sheet)												Matrix Codes						
Company Name <i>Weston Solutions</i>		Project Name <i>IDOT- 048 McHenry County</i>																DIW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment CI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank						
Street Address <i>750 E. Bunker Ct Ste 500</i>		Billing Information (if different from Report to)																						
City State Zip <i>Warren Hills IL 60081</i>		Company Name																						
Project Contact <i>S. Baburkumar</i>		Street Address																						
Phone # Fax # <i>847-918-4018 -4055</i>		City State Zip																						
Sampler(s) Name(s) <i>T. Walls 847-918-4130</i>		Client POB <i>Matt Maxwell</i>		Attention: PC#														LAB USE ONLY						
Accutest Sample # <i>MC28686</i>		MEOH/IDL Vial #		Collection			Number of preserved Bottles																	
Field ID / Point of Collection		Date		Time		Sampled by		Matrix		# of bottles		<input type="checkbox"/> H2O <input type="checkbox"/> NASH <input type="checkbox"/> NHDH <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NONE <input type="checkbox"/> DI Water <input type="checkbox"/> MECH <input type="checkbox"/> ENCORE <input type="checkbox"/> Biofilm												
<i>-1 RE4-1(0.5-1.5)-030314</i>		<i>3-3-14</i>		<i>1405</i>		<i>TW SO</i>		<i>3</i>		<i>VXS SNOCs Total metals TCLP/SPLP metals PH</i>														
<i>-2 RE4-2(0.5-1.5)-030314</i>				<i>1415</i>																				
<i>-3 VL5-1(0.5-1.5)-030314</i>				<i>1425</i>																				
<i>-4 RE7-1(0.5-1.5)-030314</i>				<i>1435</i>																				
<i>-5 RE7-2(0.5-1.5)-030314</i>				<i>1455</i>																				
<i>-6 RE7-2(0.5-1.5)-030314D</i>		<i>3-3-14</i>		<i>1455</i>																				
<i>-7 AL3-22(0.5-1.5)-030414</i>		<i>3-4-14</i>		<i>0755</i>																				
<i>-8 AL3-24(0.5-1.5)-030414</i>				<i>0805</i>																				
<i>-9 AL3-26(0.5-1.5)-030414</i>				<i>0820</i>																				
<i>-10 AL3-27(0.5-1.5)-030414</i>				<i>0835</i>																				
<i>-11 VL6-1(0.5-1.5)-030414</i>				<i>0405</i>																				
<i>-12 VL6-2(0.5-1.5)-030414</i>		<i>3-4-14</i>		<i>0915</i>		<i>TW SO</i>		<i>3</i>		<i>VXS SNOCs Total metals TCLP/SPLP metals PH</i>														
Turnaround Time (Business days)		Approved By (Accutest PM) / Date:		Data Deliverable Information						Comments / Special Instructions														
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other						<i>Loc 14E, 6F1</i>														
Emergency & Rush T/A data available VIA Lablink				Commercial "A" = Results Only Commercial "B" = Results + QC Summary																				
Sample Custody must be documented below each time samples change possession, including courier delivery.												<b>CHICAGO SC</b>												
Relinquished by Sampler: <i>1 T. Walls</i>		Date Time: <i>3-4-14 15:10</i>		Received By: <i>[Signature]</i>		Date Time: <i>3/4/14 15:40</i>		Relinquished By: <i>[Signature]</i>		Date Time: <i>3/5/14 9:30</i>		Received By: <i>2 [Signature]</i>												
Relinquished by Sampler: <i>3</i>		Date Time:		Received By: <i>3</i>		Date Time:		Relinquished By:		Date Time:		Received By: <i>4</i>												
Relinquished by:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:												
<i>5</i>				<i>5</i>																				
Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Preserved where applicable		On Ice <input type="checkbox"/>		Cooler Temp. <i>1.2°C</i>																		

**MC28686: Chain of Custody**

**Page 1 of 3**

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28686</b>

Client / Reporting Information		Project Information										Requested Analysis ( see TEST CODE sheet)										Matrix Codes																																																																																																																																																							
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>										<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOC's</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOC's</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP/SLP Methods</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PH</div> </div>										DW - Drinking Water GW - Ground Water WW - Waste SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank																																																																																																																																																							
Street Address <b>750 E. Bunick Ct Ste 500</b>		Street:																																																																																																																																																																											
City State Zip <b>Nevon Hills IL 60061</b>		Billing Information ( If different from Report to )																																																																																																																																																																											
Project Contact <b>S. Babusikumar</b>		Company Name																																																																																																																																																																											
Phone # <b>847-918-4018</b>		Fax # <b>- 4055</b>		Project #		Street Address				City		State		Zip		<table border="1"> <tr> <th>LAB USE ONLY</th> <th>Matrix</th> <th># of bottles</th> <th>HCl</th> <th>NH3</th> <th>PHOS</th> <th>HEXO</th> <th>NO3</th> <th>DI/MB</th> <th>MEOH</th> <th>ENCOLE</th> <th>Biosafe</th> </tr> <tr> <td>13</td> <td>VL6-3(0.5-1.5)-030414</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>14</td> <td>RS2-1(0.5-1.5)-030414</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td>RS3-1(0.5-1.5)-030414</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>16</td> <td>AL3-9(0.5-1.5)-030414</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>17</td> <td>AL3-11(0.5-1.5)-030414</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>18</td> <td>AL3-11(0.5-1.5)-030414D</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>19</td> <td>HV-1(0.5-1.5)-030414</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>20</td> <td>VL7-1(0.5-1.5)-030414</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </table>										LAB USE ONLY	Matrix	# of bottles	HCl	NH3	PHOS	HEXO	NO3	DI/MB	MEOH	ENCOLE	Biosafe	13	VL6-3(0.5-1.5)-030414	3					3					X	X	X	X	X	14	RS2-1(0.5-1.5)-030414																15	RS3-1(0.5-1.5)-030414																16	AL3-9(0.5-1.5)-030414																17	AL3-11(0.5-1.5)-030414																18	AL3-11(0.5-1.5)-030414D																19	HV-1(0.5-1.5)-030414																20	VL7-1(0.5-1.5)-030414	3					3					X	X	X	X	X
LAB USE ONLY	Matrix	# of bottles	HCl	NH3	PHOS	HEXO	NO3	DI/MB	MEOH	ENCOLE	Biosafe																																																																																																																																																																		
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Project Manager <b>Matt Morvell</b>		Attention:		PC#																																																																																																																																																																									
Sampler(s) Name(s) <b>T. Wills</b>		Phone # <b>847-918-4130</b>																																																																																																																																																																											
Accutest Samples # <b>MC28686</b>		Field ID / Point of Collection																																																																																																																																																																											
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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

15015 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.338180465 Longitude: -88.491141005

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.338180465 Longitude: -88.491141005

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION HV-1 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-37. SEE FIGURE 3-7 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28686

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



or L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-37**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	HV-1(0.5-1.5)-030314	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	
Location ID	HV-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	0.59	30
Methylene chloride	1.5 J	20
Toluene	1.8 J	12000
Xylene (Total)	1.6 J	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	15.9 J	46000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	7.3	11.3 / 13
Barium, Total	42.5	1500
Beryllium, Total	0.24 J	22
Calcium, Total	97900	---
Chromium, Total	10.4 J	21
Cobalt, Total	5.5	20
Copper, Total	18.5	2900
Iron, Total	13600	15000 / 15900
Lead, Total	8.7	107
Magnesium, Total	50400	325000
Manganese, Total	426 J	630 / 636
Mercury, Total	0.018 J	0.89
Nickel, Total	13.1	100
Potassium, Total	581	---
Sodium, Total	1180	---
Vanadium, Total	24.9	550
Zinc, Total	35.4 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.004 J	0.05
Barium, TCLP	0.79	2
Cadmium, TCLP	0.001 J	0.005
Cobalt, TCLP	0.023 J	1
Iron, TCLP	0.037 J	5
Manganese, TCLP	8.1	0.15
Nickel, TCLP	0.022 J	0.1
Selenium, TCLP	0.0098 J	0.05
Zinc, TCLP	0.014 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.088	0.05
Barium, SPLP	1.2 J	2
Beryllium, SPLP	0.0072	0.004
Chromium, SPLP	0.16 J	0.1
Cobalt, SPLP	0.069	1
Copper, SPLP	0.23 J	0.65
Iron, SPLP	194	5
Lead, SPLP	0.24	0.0075
Manganese, SPLP	4.5	0.15
Mercury, SPLP	0.00056	0.002
Nickel, SPLP	0.2	0.1
Selenium, SPLP	0.007 J	0.05
Zinc, SPLP	0.54	5


**Summary Table of ISGS Site No. 2792-37**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28686

Sampling Dates: 03/03/14 - 03/04/14

Report to:

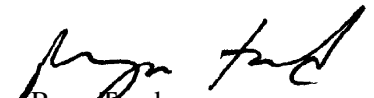
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **316**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> HV-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28686-19	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63728.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.83 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.2	ug/kg	
71-43-2	Benzene	0.59	0.57	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.69	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.87	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.79	ug/kg	
591-78-6	2-Hexanone	ND	11	0.87	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.62	ug/kg	
75-09-2	Methylene chloride	1.5	2.3	0.61	ug/kg	J
100-42-5	Styrene	ND	5.7	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	1.8	5.7	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.55  
 4



## Report of Analysis

<b>Client Sample ID:</b> HV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-19	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.66	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	1.6	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	11	ug/kg	JN
109-66-0	Pentane	6.49	12	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	6.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.4	ug/kg	JN
	Total TIC, Volatile		36.2	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	HV-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-19	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71740.D	1	03/12/14	KR	03/05/14	OP37064	MSF3194
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	88	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	67	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	HV-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-19	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.4	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	15.9	270	9.9	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	13	ug/kg	
99-09-2	3-Nitroaniline	ND	540	29	ug/kg	
100-01-6	4-Nitroaniline	ND	540	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> HV-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-19 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.3
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	82%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.61	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> HV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-19	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	7.3	0.89	0.18	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	42.5	4.4	0.064	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.24 B	0.35	0.021	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	97900	4400	56	mg/kg	10	03/07/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.4	0.89	0.084	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.5	4.4	0.042	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	18.5	2.2	0.49	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13600	8.9	0.77	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.7	0.89	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	50400	440	4.5	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	426	1.3	0.035	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.018 B	0.034	0.0074	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	13.1	3.5	0.039	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	581	440	7.6	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1180	440	2.9	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.89	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	24.9	0.89	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	35.4	1.8	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.55  
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## Report of Analysis

<b>Client Sample ID:</b> HV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-19	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.3		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

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# Report of Analysis

<b>Client Sample ID:</b> HV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-19A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0040 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.79	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.023 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.037 B			0.10	0.020	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	8.1			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.022 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0098 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.014 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> HV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-19B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.088		0.010	0.0029	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.2		0.50	0.00081	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0072		0.0040	0.00025	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.16		0.010	0.0014	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.069		0.050	0.00040	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.23		0.025	0.0070	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Iron	194		0.10	0.020	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.24		0.010	0.0017	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Manganese	4.5		0.015	0.00081	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00056		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.20		0.040	0.00057	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0070 B		0.025	0.0048	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.54		0.10	0.00050	mg/l	1	03/10/14	03/11/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16845
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.57  
4









Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15000 block of US 14 (Southeast corner of US 14 and Rose Farm Road)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.337828135 Longitude: -88.489378440  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner  
Name: Illinois Department of Transportation  
Street Address: 201 West Center Court  
PO Box: \_\_\_\_\_  
City: Schaumburg State: IL  
Zip Code: 60196-1096 Phone: 847-705-4101  
Contact: Sam Mead  
Email, if available: Sam.Mead@illinois.gov

Site Operator  
Name: Illinois Department of Transportation  
Street Address: 201 West Center Court  
PO Box: \_\_\_\_\_  
City: Schaumburg State: IL  
Zip Code: 60196-1096 Phone: 847-705-4101  
Contact: Sam Mead  
Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.337828135 Longitude: -88.489378440

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION VL7-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-38. SEE FIGURE 3-7 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28686

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

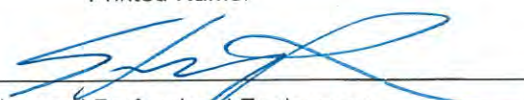
Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
Printed Name:

  
\_\_\_\_\_  
Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14  
Date:



**Summary Table of ISGS Site No. 2792-38**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL7-1(0.5-1.5)-030314	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	
Location ID	VL7-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.8	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.7	30
Ethylbenzene	1.2 J	13000
Methylene chloride	1.3 J	20
Toluene	3.5 J	12000
Xylene (Total)	2.6	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	16.6 J	46000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	4.5	11.3 / 13
Barium, Total	22.8	1500
Beryllium, Total	0.18 J	22
Calcium, Total	129000	---
Chromium, Total	8 J	21
Cobalt, Total	3.7 J	20
Copper, Total	12.4	2900
Iron, Total	10500	15000 / 15900
Lead, Total	27	107
Magnesium, Total	67700	325000
Manganese, Total	342 J	630 / 636
Mercury, Total	0.013 J	0.89
Nickel, Total	8.8	100
Potassium, Total	579	---
Sodium, Total	1700	---
Vanadium, Total	15.6	550
Zinc, Total	23.4 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.46 J	2
Cadmium, TCLP	0.0012 J	0.005
Cobalt, TCLP	0.017 J	1
Iron, TCLP	0.12	5
Manganese, TCLP	4.4	0.15
Nickel, TCLP	0.018 J	0.1
Selenium, TCLP	0.0093 J	0.05
Zinc, TCLP	0.013 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.052	0.05
Barium, SPLP	0.63 J	2
Beryllium, SPLP	0.0032 J	0.004
Cadmium, SPLP	0.0012 J	0.005
Chromium, SPLP	0.089 J	0.1
Cobalt, SPLP	0.042 J	1
Copper, SPLP	0.18 J	0.65
Iron, SPLP	116	5
Lead, SPLP	0.11	0.0075
Manganese, SPLP	1.6	0.15
Mercury, SPLP	0.00028	0.002
Nickel, SPLP	0.12	0.1
Zinc, SPLP	0.37	5


**Summary Table of ISGS Site No. 2792-38**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28686

Sampling Dates: 03/03/14 - 03/04/14

Report to:

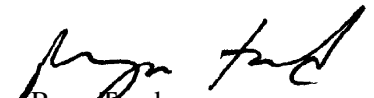
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **316**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> VL7-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28686-20	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63729.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.02 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.1	ug/kg	
71-43-2	Benzene	1.7	0.55	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.66	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.82	ug/kg	
67-66-3	Chloroform	ND	2.2	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.61	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	1.2	2.2	0.75	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.83	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.59	ug/kg	
75-09-2	Methylene chloride	1.3	2.2	0.58	ug/kg	J
100-42-5	Styrene	ND	5.5	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	3.5	5.5	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> VL7-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-20	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.63	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.99	ug/kg	
1330-20-7	Xylene (total)	2.6	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.10	11	ug/kg	JN
109-66-0	Pentane	6.48	13	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.6	ug/kg	JN
	Total TIC, Volatile		31.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.58  
4

## Report of Analysis

<b>Client Sample ID:</b>	VL7-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28686-20	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71741.D	1	03/12/14	KR	03/05/14	OP37064	MSF3194
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	86	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	66	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	99	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	12	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL7-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28686-20	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	16.6	260	9.7	ug/kg	J
206-44-0	Fluoranthene	ND	110	14	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	13	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-130%
4165-62-2	Phenol-d5	78%		30-130%
118-79-6	2,4,6-Tribromophenol	84%		30-130%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL7-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-20 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.3
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	83%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.61	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL7-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-20	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.86	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.5	0.86	0.18	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	22.8	4.3	0.062	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.18 B	0.34	0.020	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.036 U	0.34	0.036	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	129000	4300	54	mg/kg	10	03/07/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.0	0.86	0.081	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.7 B	4.3	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	12.4	2.1	0.47	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10500	8.6	0.74	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	27.0	0.86	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	67700	430	4.4	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	342	1.3	0.034	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.013 B	0.035	0.0076	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	8.8	3.4	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	579	430	7.3	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.86	0.30	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1700	430	2.8	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.11 U	0.86	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.6	0.86	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	23.4	1.7	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL7-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28686-20 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.3
---	--

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.3		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.8		su	1	03/06/14	MA	SW846 9045D

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> VL7-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-20A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.46 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.017 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.12			0.10	0.020	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	4.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/11/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0093 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16838
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22628
- (5) Prep QC Batch: MP22633

RL = Reporting Limit                      MDL = Method Detection Limit      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL7-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28686-20B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.052		0.010	0.0029	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.63		0.50	0.00081	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0032 B		0.0040	0.00025	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0012 B		0.0040	0.00050	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.089		0.010	0.0014	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.042 B		0.050	0.00040	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.18		0.025	0.0070	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	116		0.10	0.020	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.6		0.015	0.00081	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00028		0.00020	0.00010	mg/l	1	03/10/14	03/11/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/10/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16837
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22627
- (4) Prep QC Batch: MP22632

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <i>MC28686</i>

Client / Reporting Information		Project Information							Requested Analysis ( see TEST CODE sheet)										Matrix Codes	
Company Name <i>Weston Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>																	DW - Drinking Water GW - Ground Water WW - Waste SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address <i>750 E. Bunken Ct Ste 500</i>		Street:																		
City State Zip <i>Newton Hills IL 60061</i>		Billing Information ( If different from Report to )																		
Project Contact <i>S. Babusinkumar</i>		Company Name																		
E-mail <i>T.w@hs</i>		Street Address																		
Phone # <i>847-918-4018</i>		City State Zip																		
Fax # <i>- 4055</i>		Attention: POC#																		
Sampler(s) Name(s) <i>T. W. Hs</i>		Project Manager <i>Matt Morvelli</i>																		
Phone # <i>847-918-4130</i>																				
Field ID / Point of Collection <i>M28686</i>		Collection							Number of preserved bottles VDC's SDOC's Total Metals TCLP/SPLP Metals PH											
MECHDI Viol #	Date	Time	Sampled by	Matrix	# of bottles	NOI	NO2H	NO3H	NO3L	NO2O	NO3O	DIW/RI	MEOH	ENCOLE	Biofats	LAB USE ONLY				
	3-4-14	0925	TW	SO	3											X	X	X	X	X
		0935																		
		0945																		
		1020																		
		1035																		
		1050																		
	3-4-14	1105	TW	SO	3											X	X	X	X	X
<del> </del>																				
Turnaround Time ( Business days )												Data Deliverable Information				Comments / Special Instructions				
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM): / Date:		<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____												
Emergency & Rush T/A data available VIA Lablink				Commercial "A" = Results Only Commercial "B" = Results + QC Summary																
Sample Custody must be documented below each time samples change possession, including courier delivery.																				
Relinquished by Sampler: <i>7.1.14</i>		Date Time: <i>3-4-14/15:10</i>		Received By: <i>[Signature]</i>		Date Time: <i>3/4/14 15:10</i>		Relinquished By: <i>FEA</i>		Date Time: <i>9:30</i>		Received By: <i>[Signature]</i>		Date Time: <i>3/5/14</i>		<b>CHICAGO SC</b> <i>will del</i>				
3		3		3		4		4		4		4								
5		5		5		5		5		5		5								

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

604 Rose Farm Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.337356290 Longitude: -88.487555097  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.337356290 Longitude: -88.487555097Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION RE8-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-39. SEE FIGURE 3-7 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28688

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

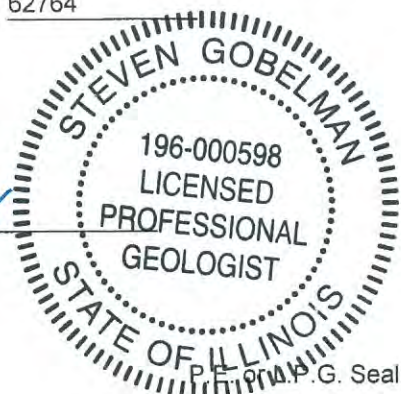
I, Steven Gobelman, P.E., L.P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G.

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

**Summary Table of ISGS Site No. 2792-39**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE8-1(0.5-1.5)-030414	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	
Location ID	RE8-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.5	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.7	30
Ethylbenzene	1.2 J	13000
Methylene chloride	1.2 J	20
Toluene	3.5 J	12000
Xylene (Total)	2.4	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	35.9 J	46000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	4.8	11.3 / 13
Barium, Total	25.3	1500
Beryllium, Total	0.19 J	22
Calcium, Total	94000	---
Chromium, Total	8.9	21
Cobalt, Total	4.6	20
Copper, Total	15.3	2900
Iron, Total	12200	15000 / 15900
Lead, Total	7.9	107
Magnesium, Total	51300	325000
Manganese, Total	336	630 / 636
Mercury, Total	0.013 J	0.89
Nickel, Total	10.8	100
Potassium, Total	708	---
Sodium, Total	1110	---
Vanadium, Total	22.1	550
Zinc, Total	28.6 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0037 J	0.05
Barium, TCLP	0.36 J	2
Cadmium, TCLP	0.0013 J	0.005
Cobalt, TCLP	0.02 J	1
Copper, TCLP	0.0073 J	0.65
Iron, TCLP	0.027 J	5
Manganese, TCLP	4.2	0.15
Nickel, TCLP	0.031 J	0.1
Selenium, TCLP	0.0098 J	0.05
Zinc, TCLP	0.0088 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.041	0.05
Barium, SPLP	0.31 J	2
Beryllium, SPLP	0.0022 J	0.004
Cadmium, SPLP	0.001 J	0.005
Chromium, SPLP	0.071	0.1
Cobalt, SPLP	0.034 J	1
Copper, SPLP	0.15	0.65
Iron, SPLP	89.4 J	5
Lead, SPLP	0.099	0.0075
Manganese, SPLP	1.7 J	0.15
Nickel, SPLP	0.095	0.1
Zinc, SPLP	0.31	5


**Summary Table of ISGS Site No. 2792-39**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28688

Sampling Date: 03/04/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **266**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	RE8-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-1	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.9
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63756.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.84 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.2	2.6	ug/kg	
71-43-2	Benzene	1.7	0.46	0.31	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.19	ug/kg	
75-25-2	Bromoform	ND	1.8	0.33	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.55	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.2	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	4.6	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.6	0.70	ug/kg	
67-66-3	Chloroform	ND	1.8	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.6	0.52	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.30	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.38	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.42	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.38	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.39	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.24	ug/kg	
100-41-4	Ethylbenzene	1.2	1.8	0.64	ug/kg	J
591-78-6	2-Hexanone	ND	9.2	0.70	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.6	0.50	ug/kg	
75-09-2	Methylene chloride	1.2	1.8	0.49	ug/kg	J
100-42-5	Styrene	ND	4.6	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.36	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.29	ug/kg	
108-88-3	Toluene	3.5	4.6	0.19	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RE8-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-1	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.53	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.84	ug/kg	
1330-20-7	Xylene (total)	2.4	1.8	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
	Unknown acid	5.09	22	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	11	ug/kg	JN
109-66-0	Pentane	6.48	8.8	ug/kg	JN
110-82-7	Cyclohexane	9.91	5.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.2	ug/kg	JN
	Total TIC, Volatile		54.4	ug/kg	J

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## Report of Analysis

<b>Client Sample ID:</b>	RE8-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-1	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37372.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
106-44-5	4-Methylphenol	ND	520	27	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

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<b>Lab Sample ID:</b>	MC28688-1	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	35.9	260	9.7	ug/kg	J
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	13	ug/kg	
99-09-2	3-Nitroaniline	ND	520	29	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	83%		30-130%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

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<b>Lab Sample ID:</b> MC28688-1	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	90%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5200	ug/kg	JN
	Total TIC, Semi-Volatile		5200	ug/kg	J

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# Report of Analysis

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<b>Lab Sample ID:</b> MC28688-1	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.8	0.89	0.19	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	25.3	4.4	0.065	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.36	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.36	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	94000	4400	56	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.9	0.89	0.085	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.6	4.4	0.042	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.3	2.2	0.49	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12200	8.9	0.77	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.9	0.89	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	51300	440	4.6	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	336	1.3	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.013 B	0.034	0.0075	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.8	3.6	0.039	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	708	440	7.6	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1110	440	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.89	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.1	0.89	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	28.6	1.8	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> RE8-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-1	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.9		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.5		su	1	03/07/14	MA	SW846 9045D

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RL = Reporting Limit

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## Report of Analysis

<b>Client Sample ID:</b> RE8-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-1A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 92.9
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0037 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.36 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.020 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0073 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.027 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.2			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.031 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0098 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0088 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> RE8-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-1B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.041		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.31 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0022 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.071		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.034 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	89.4		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.099		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.095		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.31		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.3  
4









Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
13000 to 14000 block of US 14 (between Washington Street and Kishwaukee Valley Road)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.333803191 Longitude: -88.479781748  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.333803191 Longitude: -88.479781748

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS AL4-1, AL4-2, AL4-3, AL4-4, AL4-5, AL4-6, AL4-7, AND AL4-8 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-41. SEE FIGURES 3-8 AND 3-9 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28688, MC28736, AND MC28737

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-41**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL4-1(0.5-1.5)-030414	AL4-2(0.5-1.5)-030414	AL4-3(0.5-1.5)-030414	AL4-4(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/6/2014	
Location ID	AL4-1	AL4-2	AL4-3	AL4-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.6	8	8.6	7.9	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Acetone	ND	ND	ND	54.4 J	25000
Benzene	1.9	1.7	1.2	3.5	30
Carbon disulfide	ND	ND	ND	0.83 J	9000
Ethylbenzene	1.4 J	1.1 J	0.99 J	2.1 J	13000
Methyl ethyl ketone	ND	ND	ND	14.7	17000
Methylene chloride	1.2 J	1.6 J	1.1 J	2.2 J	20
Toluene	3.9 J	3.6 J	2.8 J	7	12000
Xylene (Total)	3	2.6	2.2	6.1	5600
<b>SVOCs (ug/kg)</b>					
Benzo(a)pyrene	ND	20.5 J	ND	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	28.2 J	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	24.7 J	ND	ND	2300000
bis(2-Ethylhexyl)phthalate	14.4 J	45.1 J	36.1 J	ND	46000
Fluoranthene	ND	19.5 J	ND	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	17.5 J	ND	ND	900 / 900 / 1600
Pyrene	ND	17.6 J	ND	ND	2300000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	5.6	3.3	4.8	6.3	11.3 / 13
Barium, Total	36.6	17.1	18.1	50.2	1500
Beryllium, Total	0.24 J	0.14 J	0.17 J	0.36	22
Cadmium, Total	ND	0.11 J	0.043 J	0.071 J	5.2
Calcium, Total	62000 J	131000	137000	62200	---
Chromium, Total	9.9	11.2	8.4	11.8 J	21
Cobalt, Total	5.2	3.4 J	4.1 J	6.7	20
Copper, Total	13.4	13.1	12.1	16	2900
Iron, Total	12300 J	8280	10300	14500 J	15000 / 15900
Lead, Total	7.5	54	27.3	8.8	107
Magnesium, Total	33000 J	73600	52800	32400	325000
Manganese, Total	358 J	284	307	481 J	630 / 636
Mercury, Total	0.015 J	ND	0.011 J	0.019 J	0.89
Nickel, Total	11.7	8.5	9.5	15.5	100
Potassium, Total	704	615	716	911	---
Silver, Total	ND	ND	ND	ND	4.4
Sodium, Total	1330	1570	1120	1010 J	---
Thallium, Total	ND	ND	ND	0.25 J	2.6
Vanadium, Total	21.1	13.3	16.6	22.5	550
Zinc, Total	31.7 J	40.4 J	30.1 J	35.1 J	5100
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	0.004 J	ND	ND	0.004 J	0.05
Barium, TCLP	0.6	0.25 J	0.24 J	0.62	2
Cadmium, TCLP	0.0011 J	0.0017 J	0.0009 J	0.0016 J	0.005
Chromium, TCLP	ND	0.0072 J	ND	ND	0.1
Cobalt, TCLP	0.015 J	0.0055 J	0.0067 J	0.011 J	1
Copper, TCLP	0.0085 J	0.0099 J	0.007 J	0.0077 J	0.65
Iron, TCLP	0.083 J	ND	ND	0.14 J	5
Lead, TCLP	ND	0.0045 J	0.0023 J	ND	0.0075
Manganese, TCLP	6.5	1.7	1.7	6.6	0.15
Nickel, TCLP	0.016 J	0.014 J	0.021 J	0.022 J	0.1
Selenium, TCLP	0.0083 J	0.01 J	0.0079 J	ND	0.05
Silver, TCLP	ND	0.001 J	0.0011 J	ND	0.05
Zinc, TCLP	0.0072 J	0.069 J	0.0083 J	0.054 J	5

**Summary Table of ISGS Site No. 2792-41**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL4-1(0.5-1.5)-030414	AL4-2(0.5-1.5)-030414	AL4-3(0.5-1.5)-030414	AL4-4(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/6/2014	
Location ID	AL4-1	AL4-2	AL4-3	AL4-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
SPLP Metals (mg/l)					
Arsenic, SPLP	0.072	0.023	0.011	0.08	0.05
Barium, SPLP	0.76	0.21 J	0.082 J	0.62	2
Beryllium, SPLP	0.0057	0.0018 J	0.0006 J	0.0053	0.004
Cadmium, SPLP	0.0021 J	0.0008 J	0.0007 J	0.0009 J	0.005
Chromium, SPLP	0.17	0.063	0.02	0.15	0.1
Cobalt, SPLP	0.069	0.017 J	0.0077 J	0.07	1
Copper, SPLP	0.25	0.09	0.032	0.22	0.65
Iron, SPLP	185	58.4	22.7	188 J	5
Lead, SPLP	0.097	0.12	0.013	0.09	0.0075
Manganese, SPLP	2.9 J	0.89 J	0.34 J	2.9 J	0.15
Mercury, SPLP	0.00058	ND	ND	0.00031	0.002
Nickel, SPLP	0.18	0.06	0.022 J	0.2	0.1
Selenium, SPLP	0.009 J	ND	ND	0.0066 J	0.05
Zinc, SPLP	0.53	0.27	0.11	0.52	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

**Summary Table of ISGS Site No. 2792-41**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL4-4(0.5-1.5)-030614D	AL4-5(0.5-1.5)-030614	AL4-6(0.5-1.5)-030614	AL4-7(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	AL4-4	AL4-5	AL4-6	AL4-7	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.1	9	8.5	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Acetone	45.4 J	26.8 J	ND	ND	25000
Benzene	3.2	3.8	2.3	1.5	30
Carbon disulfide	ND	ND	0.76 J	ND	9000
Ethylbenzene	2 J	2.9	1.3 J	0.79 J	13000
Methyl ethyl ketone	5 J	ND	ND	ND	17000
Methylene chloride	2 J	2.6 J	2 J	1.1 J	20
Toluene	6.5	8.4	4.5 J	2.7 J	12000
Xylene (Total)	4.8	6.9	2.9	1.7 J	5600
<b>SVOCs (ug/kg)</b>					
Benzo(a)pyrene	ND	ND	ND	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	ND	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	ND	ND	ND	2300000
bis(2-Ethylhexyl)phthalate	ND	ND	ND	22.3 J	46000
Fluoranthene	ND	ND	ND	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	900 / 900 / 1600
Pyrene	ND	ND	ND	ND	2300000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	6.7	3.6	5.7	6.5	11.3 / 13
Barium, Total	48.3	18.6	38.1	52.9	1500
Beryllium, Total	0.38	0.16 J	0.35 J	0.41	22
Cadmium, Total	0.11 J	ND	ND	ND	5.2
Calcium, Total	68000 J	87200	62400	59800	---
Chromium, Total	11.4 J	6.9 J	10.7	13.1	21
Cobalt, Total	6.7	3.8 J	6	6.1	20
Copper, Total	17.1	9.7	15.3	15.6	2900
Iron, Total	14900 J	8500 J	14800	14900	15000 / 15900
Lead, Total	9.4	14.5	7.8	10.4	107
Magnesium, Total	35100 J	42400	31000	32500	325000
Manganese, Total	470 J	293 J	392	437	630 / 636
Mercury, Total	0.015 J	0.0094 J	0.01 J	0.021 J	0.89
Nickel, Total	15.8	8.8	16.2	16.3	100
Potassium, Total	910	604	1050	1050	---
Silver, Total	ND	ND	0.12 J	0.43 J	4.4
Sodium, Total	1070 J	383 J	1230	1760	---
Thallium, Total	0.3 J	0.25 J	0.71 J	0.75 J	2.6
Vanadium, Total	25.5	18.5	23.8	28.5	550
Zinc, Total	37.2 J	24.9 J	31.6 J	36 J	5100
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	0.0042 J	ND	ND	ND	0.05
Barium, TCLP	0.79	0.39 J	0.36 J	0.57	2
Cadmium, TCLP	0.0015 J	0.0011 J	0.0007 J	0.001 J	0.005
Chromium, TCLP	ND	ND	ND	ND	0.1
Cobalt, TCLP	0.021 J	0.0041 J	0.0081 J	0.02 J	1
Copper, TCLP	ND	ND	ND	ND	0.65
Iron, TCLP	0.067 J	0.058 J	ND	ND	5
Lead, TCLP	ND	ND	ND	ND	0.0075
Manganese, TCLP	7.8	2.1	2.4	5.4	0.15
Nickel, TCLP	0.023 J	0.014 J	0.017 J	0.019 J	0.1
Selenium, TCLP	0.0055 J	0.0056 J	ND	ND	0.05
Silver, TCLP	ND	ND	ND	ND	0.05
Zinc, TCLP	0.11	0.0095 J	0.0064 J	0.0065 J	5

**Summary Table of ISGS Site No. 2792-41**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL4-4(0.5-1.5)-030614D	AL4-5(0.5-1.5)-030614	AL4-6(0.5-1.5)-030614	AL4-7(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	AL4-4	AL4-5	AL4-6	AL4-7	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.062	0.045	0.063	0.068	0.05
Barium, SPLP	0.51	0.27 J	0.46 J	0.59	2
Beryllium, SPLP	0.0044	0.0025 J	0.0042	0.0051	0.004
Cadmium, SPLP	0.0006 J	ND	0.0005 J	0.0007 J	0.005
Chromium, SPLP	0.12	0.072	0.11	0.14	0.1
Cobalt, SPLP	0.055	0.036 J	0.05	0.052	1
Copper, SPLP	0.18	0.12	0.21	0.19	0.65
Iron, SPLP	155 J	97.5 J	151	168	5
Lead, SPLP	0.071	0.053	0.072	0.1	0.0075
Manganese, SPLP	2.2	1.4	2.2	2.7	0.15
Mercury, SPLP	0.00025	0.00013 J	0.00028	0.0003	0.002
Nickel, SPLP	0.16	0.094	0.16	0.17	0.1
Selenium, SPLP	ND	ND	0.0053 J	ND	0.05
Zinc, SPLP	0.42	0.32	0.44 J	0.47 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



**Summary Table of ISGS Site No. 2792-41**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL4-8(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	AL4-8	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.3	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Acetone	ND	25000
Benzene	2.2	30
Carbon disulfide	ND	9000
Ethylbenzene	1.2 J	13000
Methyl ethyl ketone	ND	17000
Methylene chloride	1.6 J	20
Toluene	4.3 J	12000
Xylene (Total)	2.7	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)pyrene	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	2300000
bis(2-Ethylhexyl)phthalate	ND	46000
Fluoranthene	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	900 / 900 / 1600
Pyrene	ND	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	4.2	11.3 / 13
Barium, Total	20.6	1500
Beryllium, Total	0.24 J	22
Cadmium, Total	ND	5.2
Calcium, Total	89300	---
Chromium, Total	8.2	21
Cobalt, Total	4.5	20
Copper, Total	11.9	2900
Iron, Total	11700	15000 / 15900
Lead, Total	5.2	107
Magnesium, Total	43800	325000
Manganese, Total	308	630 / 636
Mercury, Total	0.0097 J	0.89
Nickel, Total	12.4	100
Potassium, Total	985	---
Silver, Total	ND	4.4
Sodium, Total	1930	---
Thallium, Total	0.68 J	2.6
Vanadium, Total	15.7	550
Zinc, Total	27.6 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	ND	0.05
Barium, TCLP	0.28 J	2
Cadmium, TCLP	0.0007 J	0.005
Chromium, TCLP	ND	0.1
Cobalt, TCLP	0.0022 J	1
Copper, TCLP	ND	0.65
Iron, TCLP	ND	5
Lead, TCLP	ND	0.0075
Manganese, TCLP	0.93	0.15
Nickel, TCLP	0.0092 J	0.1
Selenium, TCLP	ND	0.05
Silver, TCLP	ND	0.05
Zinc, TCLP	0.0056 J	5

**Summary Table of ISGS Site No. 2792-41**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL4-8(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	
Location ID	AL4-8	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.052	0.05
Barium, SPLP	0.28 J	2
Beryllium, SPLP	0.0034 J	0.004
Cadmium, SPLP	ND	0.005
Chromium, SPLP	0.081	0.1
Cobalt, SPLP	0.045 J	1
Copper, SPLP	0.17	0.65
Iron, SPLP	119	5
Lead, SPLP	0.044	0.0075
Manganese, SPLP	1.2	0.15
Mercury, SPLP	0.00014 J	0.002
Nickel, SPLP	0.14	0.1
Selenium, SPLP	ND	0.05
Zinc, SPLP	0.41 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28688

Sampling Date: 03/04/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **266**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> AL4-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-2	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 93.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63757.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.70 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.2	ug/kg	
71-43-2	Benzene	1.9	0.57	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.69	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.86	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	1.4	2.3	0.79	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.87	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.62	ug/kg	
75-09-2	Methylene chloride	1.2	2.3	0.61	ug/kg	J
100-42-5	Styrene	ND	5.7	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	3.9	5.7	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-2	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.66	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	3.0	2.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.49	13	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	7.9	ug/kg	JN
110-82-7	Cyclohexane	9.92	6.2	ug/kg	JN
142-82-5	Heptane	10.51	5.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.9	ug/kg	JN
	Total TIC, Volatile		40.8	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.4  
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## Report of Analysis

<b>Client Sample ID:</b>	AL4-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-2	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37373.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
106-44-5	4-Methylphenol	ND	520	27	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-2	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.1	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	14.4	260	9.6	ug/kg	J
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	11	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	13	ug/kg	
99-09-2	3-Nitroaniline	ND	520	28	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-2	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.1
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.68	4600	ug/kg JN
	Total TIC, Semi-Volatile		4600	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL4-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-2	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.6	0.87	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	36.6	4.4	0.063	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.24 B	0.35	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	62000	4400	55	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.9	0.87	0.083	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.2	4.4	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.4	2.2	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12300	8.7	0.76	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.5	0.87	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	33000	440	4.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	358	1.3	0.035	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.034	0.0075	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	11.7	3.5	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	704	440	7.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1330	440	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.87	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	21.1	0.87	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	31.7	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL4-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-2 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 93.1
--	--

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	93.1		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.6		su	1	03/07/14	MA	SW846 9045D

---

RL = Reporting Limit

4.4  
4

# Report of Analysis

<b>Client Sample ID:</b> AL4-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-2A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0040 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.60	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.015 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0085 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.083 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	6.5			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0083 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0072 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.5  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-2B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 93.1
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.072		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.76		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0057		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0021 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.17		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.069		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.25		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	185		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.097		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.9		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00058		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.18		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0090 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.53		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-5	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 94.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63760.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.81 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.1	ug/kg	
71-43-2	Benzene	1.7	0.55	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.67	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.84	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.46	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	1.1	2.2	0.76	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.84	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.60	ug/kg	
75-09-2	Methylene chloride	1.6	2.2	0.59	ug/kg	J
100-42-5	Styrene	ND	5.5	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.35	ug/kg	
108-88-3	Toluene	3.6	5.5	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-5	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.63	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	2.6	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.07	13	ug/kg	JN
109-66-0	Pentane	6.49	12	ug/kg	JN
	Unknown	11.18	6.9	ug/kg	JN
	Total TIC, Volatile		31.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.13  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-5	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 94.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37376.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	250	11	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	510	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	510	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	510	83	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	510	64	ug/kg	
95-48-7	2-Methylphenol	ND	510	20	ug/kg	
106-44-5	4-Methylphenol	ND	510	26	ug/kg	
88-75-5	2-Nitrophenol	ND	510	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	95	ug/kg	
87-86-5	Pentachlorophenol	ND	510	36	ug/kg	
108-95-2	Phenol	ND	250	14	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	510	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	510	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	12	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	20.5	100	11	ug/kg	J
205-99-2	Benzo(b)fluoranthene	28.2	100	13	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	24.7	100	10	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	100	15	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	250	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	250	10	ug/kg	
91-58-7	2-Chloronaphthalene	ND	250	14	ug/kg	
106-47-8	4-Chloroaniline	ND	510	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	250	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	250	15	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	250	18	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	250	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-5	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	94.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	250	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	250	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	250	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	510	34	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	510	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	250	25	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	250	27	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	250	7.9	ug/kg	
84-66-2	Diethyl phthalate	ND	250	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	250	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	45.1	250	9.4	ug/kg	J
206-44-0	Fluoranthene	19.5	100	14	ug/kg	J
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	250	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	510	130	ug/kg	
67-72-1	Hexachloroethane	ND	250	12	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	17.5	100	11	ug/kg	J
78-59-1	Isophorone	ND	250	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	510	13	ug/kg	
99-09-2	3-Nitroaniline	ND	510	28	ug/kg	
100-01-6	4-Nitroaniline	ND	510	13	ug/kg	
91-20-3	Naphthalene	ND	100	16	ug/kg	
98-95-3	Nitrobenzene	ND	250	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	250	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	250	15	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	17.6	100	12	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	250	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	89%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL4-2(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-5 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 94.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5200	ug/kg	JN
	Total TIC, Semi-Volatile		5200	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.13  
4

## Report of Analysis

Client Sample ID: AL4-2(0.5-1.5)-030414

Lab Sample ID: MC28688-5

Matrix: SO - Soil

Project: IDOT 048 - McHenry County, IL

Date Sampled: 03/04/14

Date Received: 03/05/14

Percent Solids: 94.1

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.3	0.87	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	17.1	4.4	0.063	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.14 B	0.35	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.11 B	0.35	0.037	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	131000	4400	55	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.2	0.87	0.083	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.4 B	4.4	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.1	2.2	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	8280	8.7	0.76	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	54.0	0.87	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	73600	440	4.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	284	1.3	0.035	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0073 U	0.033	0.0073	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	8.5	3.5	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	615	440	7.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1570	440	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.87	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	13.3	0.87	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	40.4	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

(1) Instrument QC Batch: MA16846

(2) Instrument QC Batch: MA16853

(3) Instrument QC Batch: MA16856

(4) Prep QC Batch: MP22621

(5) Prep QC Batch: MP22652

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL

## Report of Analysis

<b>Client Sample ID:</b> AL4-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-5	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	94.1		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.0		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

4.13  
**4**

# Report of Analysis

<b>Client Sample ID:</b> AL4-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-5A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.25 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0072 B	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0055 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0099 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0045 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.7			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 B	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.069 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

4.14  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-2(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-5B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 94.1
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.023		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.21 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0018 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.063		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.017 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.090		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	58.4		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.89		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.060		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.27		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.15  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-6	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63761.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.96 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.0	2.5	ug/kg	
71-43-2	Benzene	1.2	0.45	0.30	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.19	ug/kg	
75-25-2	Bromoform	ND	1.8	0.32	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.54	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.0	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	4.5	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.14	ug/kg	
75-00-3	Chloroethane	ND	4.5	0.68	ug/kg	
67-66-3	Chloroform	ND	1.8	0.15	ug/kg	
74-87-3	Chloromethane	ND	4.5	0.51	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.29	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.37	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.41	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.38	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.20	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.24	ug/kg	
100-41-4	Ethylbenzene	0.99	1.8	0.62	ug/kg	J
591-78-6	2-Hexanone	ND	9.0	0.68	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.5	0.49	ug/kg	
75-09-2	Methylene chloride	1.1	1.8	0.48	ug/kg	J
100-42-5	Styrene	ND	4.5	0.15	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.36	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.28	ug/kg	
108-88-3	Toluene	2.8	4.5	0.19	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-6	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.52	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.82	ug/kg	
1330-20-7	Xylene (total)	2.2	1.8	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	81%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
109-66-0	Pentane	6.49	8.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	5.9	ug/kg	JN
	Total TIC, Volatile		14.7	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.16  
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## Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-6	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37377.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
106-44-5	4-Methylphenol	ND	520	27	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	97	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	12	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-6	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.16  
4

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.1	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	36.1	260	9.6	ug/kg	J
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	11	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	13	ug/kg	
99-09-2	3-Nitroaniline	ND	520	28	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	79%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-6	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.16  
4

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	87%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5000	ug/kg	JN
	Total TIC, Semi-Volatile		5000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-6	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.8	0.87	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	18.1	4.3	0.063	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.17 B	0.35	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.043 B	0.35	0.037	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	137000	4300	55	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.4	0.87	0.083	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.1 B	4.3	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	12.1	2.2	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10300	8.7	0.76	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	27.3	0.87	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	52800	430	4.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	307	1.3	0.035	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.033	0.0072	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	9.5	3.5	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	716	430	7.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1120	430	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.87	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	16.6	0.87	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	30.1	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.16  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-6 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 92.8
--	--

4.16  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.8		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.6		su	1	03/07/14	MA	SW846 9045D

---

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-6A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.24 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0067 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0023 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.7			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.021 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0079 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0011 B	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0083 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL4-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-6B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.011		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.082 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00060 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00070 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.020		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0077 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.032		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	22.7		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.013		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.34		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.022 B		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.11		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.18  
4

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)										Matrix Codes			
Company Name <i>Wexton Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment CL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank			
Street Address <i>750 E. Banker Ct St. 500</i>		Street:															
City State Zip <i>Newark IL 60061</i>		City:															
Project Contact <i>S. Babusankar</i>		Project#															
Phone # Fax # <i>847-918-7018 -4055</i>		Client POB															
Sampler(s) Name(s) Phone # <i>T. Walk 847-918-4130</i>		Project Manager															
Account # <i>A128688</i>		Collection															
Field ID / Point of Collection		MECHID / Val #		Date		Time		Sampled by		Matrix		# of bottles		Number of preserved bottles		LAB USE ONLY	
														VOCs SVOCs Total Metals TCU/SPR Metals PH			
1 REB-1(0.5-1.5)-030414				3-4-14		1115		TW 50		3		3		X X X X X			
2 AL4-1(0.5-1.5)-030414						1205											
3 VL9-1(0.5-1.5)-030414						1215											
4 VL9-2(0.5-1.5)-030414						1225											
5 AL4-2(0.5-1.5)-030414						1240											
6 AL4-3(0.5-1.5)-030414						1250											
7 RES4-1(0.5-1.5)-030414						1300											
8 VL11-1(0.5-1.5)-030414						1310											
9 PV-1(0.5-1.5)-030414						1325											
10 PV-2(0.5-1.5)-030414						1335											
11 PV-3(0.5-1.5)-030414						1350											
12 PV-3(0.5-1.5)-030414				3-4-14		1350		TW 50		3		3		X X X X X			
Turnaround Time ( Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information										Comments / Special Instructions			
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + OC Summary										Loc 143, GFI			
Emergency & Rush T/A data available VIA Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.										CHICAGO SIC					
Relinquished by Sampler: <i>1 T. Walk</i>		Date Time: <i>3-4-14 15:40</i>		Received By: <i>[Signature]</i>		Relinquished By: <i>[Signature]</i>		Date Time: <i>3/5/14 9:20</i>		Received By: <i>2 Will Jalk</i>							
Relinquished by Sampler: <i>3</i>		Date Time:		Received By:		Relinquished By:		Date Time:		Received By:							
Relinquished by: <i>5</i>		Date Time:		Received By:		Custody Seal #		<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not intact		On Ice <input checked="" type="checkbox"/> <i>1.4°C</i>		Cooler Temp. <i>1.4°C</i>					

5.1  
5

MC28688: Chain of Custody

Page 1 of 3

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)										Matrix Codes							
Company Name <i>Weston Solutions</i>		Project Name <i>JDOT-048 McHenry County</i>		VOCs SUDCs Total Metals TELP/SPLP Metals PH										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank							
Street Address <i>750 E. Bunker Ct Ste 500</i>		Street:																			
City State Zip <i>Norwich Hills IL 60061</i>		City:																			
Project Contact <i>S. Babusankumar</i>		Project #																			
Phone # Fax # <i>847-918-4018 -4055</i>		Client POB																			
Sampler(s) Name(s) <i>T. Wells</i>		Phone # <i>847-918-4130</i>		Project Manager <i>[Signature]</i>		Attention:		POB #		Billing Information ( If different from Report to)		Company Name		Street Address		City State Zip					
Accutest Sample # <i>MC28688</i>		Field ID / Point of Collection		MECH/ID: Viol #		Collection		Date		Time		Sampled by		Matrix		# of bottles		Number of preserved Bottles		LAB USE ONLY	
<i>13</i>		<i>PV-4(0.5-1.5)-030414</i>				<i>3-4-14</i>		<i>1400</i>		<i>TW SO</i>		<i>3</i>									
<i>14</i>		<i>PV-5(0.5-1.5)-030414</i>																			
<i>15</i>		<i>PV-6(0.5-1.5)-030414</i>																			
<i>16</i>		<i>REQ-1(0.5-1.5)-030414</i>																			
<i>17</i>		<i>REQ-2(0.5-1.5)-030414</i>				<i>3-4-14</i>		<i>1450</i>		<i>TW SO</i>		<i>3</i>									





03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-13	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.3
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63844.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.48 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.4	ug/kg	
71-43-2	Benzene	2.3	0.60	0.41	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.43	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.73	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.7	ug/kg	
75-15-0	Carbon disulfide	0.76	6.0	0.16	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.4	0.27	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.91	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.68	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.39	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.50	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.55	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.32	ug/kg	
100-41-4	Ethylbenzene	1.3	2.4	0.83	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.92	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.0	0.65	ug/kg	
75-09-2	Methylene chloride	2.0	2.4	0.64	ug/kg	J
100-42-5	Styrene	ND	6.0	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.48	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.38	ug/kg	
108-88-3	Toluene	4.5	6.0	0.25	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.69	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	2.9	2.4	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	57	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	28	ug/kg	JN
109-66-0	Pentane	6.48	25	ug/kg	JN
	Unknown	7.83	16	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7.1	ug/kg	JN
110-54-3	Hexane	8.46	15	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8.7	ug/kg	JN
110-82-7	Cyclohexane	9.92	8.8	ug/kg	JN
142-82-5	Heptane	10.51	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
	Total TIC, Volatile		185.2	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-13	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37438.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	86	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	66	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	99	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	12	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-13	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	9.7	ug/kg	
206-44-0	Fluoranthene	ND	110	14	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	13	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	86%		30-130%
4165-62-2	Phenol-d5	81%		30-130%
118-79-6	2,4,6-Tribromophenol	70%		30-130%
4165-60-0	Nitrobenzene-d5	85%		30-130%
321-60-8	2-Fluorobiphenyl	87%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-13 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.3
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6200	ug/kg	JN
	Total TIC, Semi-Volatile		6200	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-13 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.3
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**Metals Analysis**

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.7	0.89	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	38.1	4.4	0.064	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.35 B	0.36	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.36	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	62400	4400	56	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.7	0.89	0.084	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.0	4.4	0.042	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.3	2.2	0.49	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14800	8.9	0.77	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.8	0.89	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	31000	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	392	1.3	0.036	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.010 B	0.033	0.0073	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	16.2	3.6	0.039	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	1050	440	7.6	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1230	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.71 B	0.89	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	23.8	0.89	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	31.6	1.8	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-13 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.3
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.3		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.5		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.37  
4



# Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-13A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.36 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00070 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0081 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.4			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0064 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-13B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.063		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.46 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.11		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.050		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.21		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	151		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.072		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.2		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00028		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.16		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0053 B		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.44		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.39  
4

# Report of Analysis

<b>Client Sample ID:</b> AL4-7(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-14	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63845.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	6.09 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.1	2.5	ug/kg	
71-43-2	Benzene	1.5	0.45	0.31	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.19	ug/kg	
75-25-2	Bromoform	ND	1.8	0.32	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.55	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.1	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	4.5	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.14	ug/kg	
75-00-3	Chloroethane	ND	4.5	0.69	ug/kg	
67-66-3	Chloroform	ND	1.8	0.15	ug/kg	
74-87-3	Chloromethane	ND	4.5	0.51	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.29	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.38	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.41	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.38	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.24	ug/kg	
100-41-4	Ethylbenzene	0.79	1.8	0.63	ug/kg	J
591-78-6	2-Hexanone	ND	9.1	0.69	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.5	0.49	ug/kg	
75-09-2	Methylene chloride	1.1	1.8	0.48	ug/kg	J
100-42-5	Styrene	ND	4.5	0.15	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.36	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.28	ug/kg	
108-88-3	Toluene	2.7	4.5	0.19	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.20	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.40  
**4**

## Report of Analysis

<b>Client Sample ID:</b>	AL4-7(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-14	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.2
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.52	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.83	ug/kg	
1330-20-7	Xylene (total)	1.7	1.8	0.20	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	44	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	21	ug/kg	JN
109-66-0	Pentane	6.48	20	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.83	12	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.7	ug/kg	JN
110-54-3	Hexane	8.46	12	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	6	ug/kg	JN
110-82-7	Cyclohexane	9.92	6	ug/kg	JN
142-82-5	Heptane	10.51	4.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.6	ug/kg	JN
	Total TIC, Volatile		140.1	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-7(0.5-1.5)-030614		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-14		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.2
<b>Method:</b> SW846 8270D SW846 3546		
<b>Project:</b> IDOT 048 - McHenry County, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37439.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-7(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-14	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	22.3	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	75%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-7(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.2
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	5600	ug/kg	JN
	Total TIC, Semi-Volatile		5600	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
4

# Report of Analysis

<b>Client Sample ID:</b> AL4-7(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-14	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.5	0.91	0.19	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	52.9	4.5	0.066	mg/kg	1	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.41	0.36	0.022	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.36	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	59800	4500	57	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	13.1	0.91	0.086	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.1	4.5	0.043	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.6	2.3	0.50	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14900	9.1	0.79	mg/kg	1	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	10.4	0.91	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	32500	450	4.7	mg/kg	1	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	437	1.4	0.036	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.021 B	0.035	0.0077	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	16.3	3.6	0.040	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	1050	450	7.8	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.43 B	0.45	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1760	450	3.0	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.75 B	0.91	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	28.5	0.91	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	36.0	1.8	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> AL4-7(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-14 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.2
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.2		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.4		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

### Report of Analysis

<b>Client Sample ID:</b> AL4-7(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-14A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.57	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.020 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.4			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.019 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0065 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.41  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-7(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-14B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.068		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.59		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0051		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00070 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.052		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.19		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	168		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.10		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.7		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00030		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.17		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.47		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.42  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-8(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-15	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63846.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	4.66 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	2.2	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.31	ug/kg	
100-41-4	Ethylbenzene	1.2	2.3	0.80	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.63	ug/kg	
75-09-2	Methylene chloride	1.6	2.3	0.62	ug/kg	J
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.37	ug/kg	
108-88-3	Toluene	4.3	5.8	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-8(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-15	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	2.7	2.3	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	53	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	26	ug/kg	JN
109-66-0	Pentane	6.49	21	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	14	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	8.2	ug/kg	JN
110-54-3	Hexane	8.46	13	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.5	ug/kg	JN
110-82-7	Cyclohexane	9.92	7.8	ug/kg	JN
142-82-5	Heptane	10.51	6.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	11	ug/kg	JN
	Total TIC, Volatile		167.8	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-8(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37440.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	67	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	27	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-8(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.4	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	9.9	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	13	ug/kg	
99-09-2	3-Nitroaniline	ND	540	29	ug/kg	
100-01-6	4-Nitroaniline	ND	540	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	84%		30-130%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-8(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-15 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.9
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	5600	ug/kg	JN
	Total TIC, Semi-Volatile		5600	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL4-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Arsenic	4.2	0.87	0.18	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Barium	20.6	4.4	0.063	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Beryllium	0.24 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Calcium	89300	4400	55	mg/kg	10	03/12/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Chromium	8.2	0.87	0.083	mg/kg	1	03/12/14	03/14/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>5</sup>
Cobalt	4.5	4.4	0.041	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Copper	11.9	2.2	0.48	mg/kg	1	03/12/14	03/14/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>5</sup>
Iron	11700	8.7	0.76	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Lead	5.2	0.87	0.15	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Magnesium	43800	440	4.5	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Manganese	308	1.3	0.035	mg/kg	1	03/12/14	03/14/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>5</sup>
Mercury	0.0097 B	0.035	0.0077	mg/kg	1	03/18/14	03/18/14 SA	SW846 7471B <sup>4</sup>	SW846 7471B <sup>6</sup>
Nickel	12.4	3.5	0.038	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Potassium	985	440	7.5	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Sodium	1930	440	2.9	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Thallium	0.68 B	0.87	0.12	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>
Vanadium	15.7	0.87	0.11	mg/kg	1	03/12/14	03/14/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>5</sup>
Zinc	27.6	1.7	0.14	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>5</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16872
- (4) Instrument QC Batch: MA16882
- (5) Prep QC Batch: MP22641
- (6) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL4-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.9		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.3		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL4-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-15A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.28 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00070 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0022 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.93			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0092 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0056 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL4-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-15B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.052		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.28 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0034 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.081		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.045 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	119		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.044		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.2		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00014 B		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.14		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.41		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC 28736</b>

Client / Reporting Information			Project Information											Requested Analysis ( see TEST CODE sheet)				Matrix Codes					
Company Name <b>Weston Solutions, Inc</b>			Project Name <b>DOT # 049 McHenry County</b>											<p>VOCs SVOCs Total Metals TCUP / SCLP Metals pH</p>				<p>DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank</p>					
Street Address <b>750 E Bunker Ct # 500</b>			Street																				
City, State, Zip <b>Vernon Hills IL 60061</b>			Billing Information ( If different from Report to ) Company Name																				
Project Contact <b>S. Babusurkumar</b>			Street Address																				
Phone # <b>947-919-4000</b>			City State Zip																				
Sampler(s) Name(s) <b>David Sena</b>			Attention: PO#																				
Accutest Sample #	Field ID / Point of Collection	MECH/DI/Vial #	Date	Time	Sampled by	Matrix	# of bottles	NCI	NCPH	PNCD	P2004	NONE	D1 WWR1						MEQH	ENCORE	Bioshield	LAB USE ONLY	
-1	EP-8 (0.5-1.5)-030614		3-6-14	7:55	DS	So	3																
-2	EP-9 (0.5-1.5)-030614			8:05																			
-3	GL-1 (0.5-1.5)-030614			9:20																			
-4	GL-2 (0.5-1.5)-030614			9:35																			
-5	GL-3 (0.5-1.5)-030614			8:50																			
-6	GL-3 (0.5-1.5)-030614			8:50																			
-7	KF-1 (0.5-1.5)-030614			9:05																			
-8	KF-2 (0.5-1.5)-030614			9:20																			
-9	NG-1 (0.5-1.5)-030614			9:30																			
-10	RES-1 (0.5-1.5)-030614			9:45																			
-11	RES-2 (0.5-1.5)-030614			10:05																			
-12	RES-3 (0.5-1.5)-030614			10:15																			

Data Deliverable Information		Comments / Special Instructions
<input checked="" type="checkbox"/> Turnaround Time ( Business days ) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>		<p><i>See ISA, pF2</i></p>
Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>		

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: <b>David Sena</b>	Date Time: <b>3-7-14</b>	Received By: <i>[Signature]</i>	Relinquished By: <b>F2X</b>	Date Time: <b>3-7-14</b>	Received By: <i>[Signature]</i>
Relinquished by Sampler: <b>3</b>	Date Time:	Received By: <b>3</b>	Relinquished By: <b>4</b>	Date Time:	Received By: <b>4</b>
Relinquished by: <b>5</b>	Date Time:	Received By: <b>5</b>	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact	On Ice <input type="checkbox"/> Cooler Temp. <input checked="" type="checkbox"/> 1.5-7.1-0.8

**MC28736: Chain of Custody**

**Page 1 of 3**

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03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28737

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
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ATTN: Andris Slesres

Total number of pages in report: **319**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28778.D	1	03/18/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.90 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	54.4	11	3.2	ug/kg	
71-43-2	Benzene	3.5	0.57	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	14.7	11	3.5	ug/kg	
75-15-0	Carbon disulfide	0.83	5.7	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.86	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	2.1	2.3	0.78	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.86	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.61	ug/kg	
75-09-2	Methylene chloride	2.2	2.3	0.60	ug/kg	J
100-42-5	Styrene	ND	5.7	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.35	ug/kg	
108-88-3	Toluene	7.0	5.7	0.23	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
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## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.65	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	6.1	2.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	104%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	43	ug/kg	JN
109-66-0	Pentane	2.40	20	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	6.1	ug/kg	JN
110-54-3	Hexane	4.24	12	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	6.1	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.80	2.6	ug/kg	JN
142-82-5	Heptane	7.54	5.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	9.3	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	4.2	ug/kg	JN
13389-42-9	2-Octene, (E)-	13.44	2.3	ug/kg	JN
90-12-0	Naphthalene, 1-methyl-	16.27	2.1	ug/kg	JN
	Total TIC, Volatile		113.3	ug/kg	J

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## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-1	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18101.D	5	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	79	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	550	73	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	550	64	ug/kg	
218-01-9	Chrysene	ND	550	68	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	83	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	98	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL = Method Detection Limit

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## Report of Analysis

<b>Client Sample ID:</b>	AL4-4(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-1	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	65	ug/kg	
132-64-9	Dibenzofuran	ND	550	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	200	1400	68	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	ND	550	75	ug/kg	
86-73-7	Fluorene	ND	550	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	79	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	60	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	550	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	78	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	550	74	ug/kg	
129-00-0	Pyrene	ND	550	64	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	76%		30-130%
118-79-6	2,4,6-Tribromophenol	94%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%

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## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	103%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.64	6600	ug/kg JN
	Total TIC, Semi-Volatile		6600	ug/kg J

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 B = Indicates analyte found in associated method blank  
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# Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.3	0.89	0.18	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	50.2	4.4	0.064	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.36	0.35	0.021	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.071 B	0.35	0.038	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	62200	4400	56	mg/kg	10	03/13/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.8	0.89	0.084	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.7	4.4	0.042	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	16.0	2.2	0.49	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14500	8.9	0.77	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.8	0.89	0.15	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	32400	440	4.5	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	481	1.3	0.035	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.019 B	0.035	0.0076	mg/kg	1	03/18/14	03/18/14 SA	SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	15.5	3.5	0.039	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	911	440	7.6	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1010	440	2.9	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.25 B	0.89	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.5	0.89	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	35.1	1.8	0.14	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.2		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	7.9		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

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## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-1A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0040 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.62	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0016 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.011 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0077 B			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.14			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	6.6			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.022 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.054 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-1B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.080		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.62		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0053		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00090 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.070		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.22		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	188		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.090		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.9		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00031		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.20		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0066 B		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.52		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.3  
4



# Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614D	
<b>Lab Sample ID:</b> MC28737-2	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28779.D	1	03/18/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.09 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	45.4	11	3.0	ug/kg	
71-43-2	Benzene	3.2	0.54	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.65	ug/kg	
78-93-3	2-Butanone (MEK)	5.0	11	3.3	ug/kg	J
75-15-0	Carbon disulfide	ND	5.4	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.82	ug/kg	
67-66-3	Chloroform	ND	2.2	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.61	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.28	ug/kg	
100-41-4	Ethylbenzene	2.0	2.2	0.75	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.82	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.4	0.58	ug/kg	
75-09-2	Methylene chloride	2.0	2.2	0.58	ug/kg	J
100-42-5	Styrene	ND	5.4	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	6.5	5.4	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614D	
<b>Lab Sample ID:</b> MC28737-2	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.62	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.99	ug/kg	
1330-20-7	Xylene (total)	4.8	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.16	40	ug/kg	JN
109-66-0	Pentane	2.40	18	ug/kg	JN
110-54-3	Hexane	4.23	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	5.1	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	2.6	ug/kg	JN
291-64-5	Cycloheptane	7.33	1.8	ug/kg	JN
142-82-5	Heptane	7.53	5.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	9.3	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.53	2.3	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	3.5	ug/kg	JN
14919-01-8	3-Octene, (E)-	13.44	1.8	ug/kg	JN
	Total TIC, Volatile		100.8	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614D	
<b>Lab Sample ID:</b> MC28737-2	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18102.D	5	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	78	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	77	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	540	73	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	ND	540	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	58	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	540	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	540	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	540	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	540	64	ug/kg	
218-01-9	Chrysene	ND	540	68	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	83	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	98	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	83	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-4(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	72	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	65	ug/kg	
132-64-9	Dibenzofuran	ND	540	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	42	ug/kg	
84-66-2	Diethyl phthalate	158	1400	68	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	ND	540	74	ug/kg	
86-73-7	Fluorene	ND	540	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	79	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	60	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	540	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	78	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	540	74	ug/kg	
129-00-0	Pyrene	ND	540	64	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	98%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	87%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.64	6100	ug/kg JN
	Total TIC, Semi-Volatile		6100	ug/kg J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.4  
4

# Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.7	0.90	0.19	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	48.3	4.5	0.065	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.38	0.36	0.021	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.11 B	0.36	0.038	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	68000	4500	56	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.4	0.90	0.085	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.7	4.5	0.042	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	17.1	2.2	0.50	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14900	9.0	0.78	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	9.4	0.90	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	35100	450	4.6	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	470	1.3	0.036	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.033	0.0072	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	15.8	3.6	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	910	450	7.7	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1070	450	3.0	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.30 B	0.90	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	25.5	0.90	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	37.2	1.8	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.4  
 4

## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.7		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.4  
 4

## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28737-2A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.7
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0042 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.79	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.021 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.067 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	7.8			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.023 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0055 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.11			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.5  
4



## Report of Analysis

<b>Client Sample ID:</b> AL4-4(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-2B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.062		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.51		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0044		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.055		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.18		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	155		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.071		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.2		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00025		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.16		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.42		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.6  
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## Report of Analysis

<b>Client Sample ID:</b> AL4-5(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-3	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28780.D	1	03/18/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.26 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	26.8	14	3.8	ug/kg	
71-43-2	Benzene	3.8	0.68	0.46	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.48	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.82	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.2	ug/kg	
75-15-0	Carbon disulfide	ND	6.8	0.18	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.7	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.8	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.8	0.77	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.44	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.56	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.57	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.57	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.57	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.36	ug/kg	
100-41-4	Ethylbenzene	2.9	2.7	0.94	ug/kg	
591-78-6	2-Hexanone	ND	14	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.8	0.73	ug/kg	
75-09-2	Methylene chloride	2.6	2.7	0.72	ug/kg	J
100-42-5	Styrene	ND	6.8	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.53	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.43	ug/kg	
108-88-3	Toluene	8.4	6.8	0.28	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.30	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> AL4-5(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-3	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.78	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	6.9	2.7	0.30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	81%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	38	ug/kg	JN
109-66-0	Pentane	2.41	25	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	8	ug/kg	JN
110-54-3	Hexane	4.23	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	7.2	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.80	4.3	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.34	3	ug/kg	JN
142-82-5	Heptane	7.54	8.9	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	16	ug/kg	JN
18829-55-5	2-Heptenal, (E)-	9.78	7.5	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.53	3.7	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	12.95	5.8	ug/kg	JN
104-76-7	1-Hexanol, 2-ethyl-	13.44	2.9	ug/kg	JN
	Total TIC, Volatile		144.3	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
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## Report of Analysis

<b>Client Sample ID:</b> AL4-5(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-3	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18103.D	1	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-5(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6500	ug/kg	JN
	Total TIC, Semi-Volatile		6500	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

# Report of Analysis

<b>Client Sample ID:</b> AL4-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.6	0.92	0.19	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	18.6	4.6	0.067	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.16 B	0.37	0.022	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.039 U	0.37	0.039	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	87200	4600	58	mg/kg	10	03/13/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	6.9	0.92	0.087	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.8 B	4.6	0.043	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	9.7	2.3	0.51	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	8500	9.2	0.80	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	14.5	0.92	0.15	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	42400	460	4.7	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	293	1.4	0.037	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0094 B	0.036	0.0080	mg/kg	1	03/18/14	03/18/14 SA	SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	8.8	3.7	0.040	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	604	460	7.9	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	383 B	460	3.0	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.25 B	0.92	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.5	0.92	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	24.9	1.8	0.15	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
 4

## Report of Analysis

<b>Client Sample ID:</b> AL4-5(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-3 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 86.4
--	--

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.4		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	9.0		su	1	03/11/14	MA	SW846 9045D

---

RL = Reporting Limit

4.7  
4



## Report of Analysis

<b>Client Sample ID:</b> AL4-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-3A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.39 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0041 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.058 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.1			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0056 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0095 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.8  
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## Report of Analysis

<b>Client Sample ID:</b> AL4-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-3B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.045		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.27 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0025 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.072		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.036 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.12		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	97.5		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.053		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.4		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00013 B		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.094		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.32		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #	Barcode Control #
Accutest Quote #	Accutest Job # <b>MC28737</b>

Client / Reporting Information			Project Information											Requested Analysis (see TEST CODE sheet)											Matrix Codes	
Company Name <b>Weston Solutions</b>			Project Name <b>IDOT - 04B McHenry County</b>																						DW - Drinking Water GW - Ground Water WW - Waster SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB- Rinse Blank TB-Trip Blank	
Street Address <b>750 E. Bunke Ct Ste 500</b>			Street: <b>Nevan Hills IL 60061</b>											Billing Information (if different from Report to)												
City <b>Nevan Hills IL 60061</b>			City: <b>Nevan Hills IL 60061</b>											Company Name												
Project Contact <b>S. Patrusikumar</b>			Project #											Street Address												
Phone # <b>817-918-4018</b>			Client POB											City												
Fax # <b>-4055</b>			Project Manager											State												
Sampler(s) Name(s) <b>T. Walls</b>			Attention:											Zip												
Phone # <b>817-918-4130</b>			PO#																							
Accutest Sample #	Field ID / Point of Collection	MECHIDI Vial #	Collection				Number of preserved Bottles											LAB USE ONLY								
			Date	Time	Sampled by	Matrix	# of bottles	HCl	NH <sub>4</sub> OH	NH <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> O <sub>2</sub>	DI Water	NONE	MEDIA	ENCORE	Blank									
1	AL4-4(0.5-1.5)-030614		3-6-14	0710	TW	SO	3												X	X	X	X	X			
2	AL4-4(0.5-1.5)-030614			0710																						
3	AL4-5(0.5-1.5)-030614			0730																						
4	AL5-1(0.5-1.5)-030614			0745																						
5	AL5-2(0.5-1.5)-030614			0800																						
6	UL9-1(0.5-1.5)-030614			0810																						
7	RE10-1(0.5-1.5)-030614			0820																						
8	RE10-2(0.5-1.5)-030614			0835																						
9	RE10-3(0.5-1.5)-030614			0845																						
10	RE10-4(0.5-1.5)-030614			0855																						
11	RE10-5(0.5-1.5)-030614			0905																						
12	RE10-6(0.5-1.5)-030614		3-6-14	0920	TW	SO	3																			
Turnaround Time (Business days)			Approved By (Accutest PM): / Date:											Data Deliverable Information											Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY														<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____											Loc BA, 6F2	
Emergency & Rush T/A data available VIA Lablink			Commercial "A" = Results Only Commercial "B" = Results + QC Summary																							
Sample Custody must be documented below each time samples change possession, including courier delivery.																										
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:		Received By:		Date Time:		Received By:		
1 Tim Wallis		3-6-14/1500		[Signature]		3:04		2 FED		7-7-14 8:30		2 [Signature]				4		4		4		4		4		
3				3				4				4				4		4		4		4		4		
5				5				Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Preserved where applicable		<input type="checkbox"/> On Ice <input checked="" type="checkbox"/> Cooler Temp.		1.3-1.1-0.8										

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Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes					
Company Name: <u>Nexton Solutions</u> Street Address: <u>750 E. Burkle Ct Ste 500</u> City: <u>Norton Hills IL</u> State: <u>60061</u> Project Contact: <u>S. Babasakumar</u> E-mail: <u></u> Phone #: <u>847-918-4018</u> Fax #: <u>-4055</u> Sampler(s) Name(s): <u>J. Williams</u> Phone #: <u>847-918-4130</u>	Project Name: <u>IDOT-019 Methuen County</u> Street: <u></u> Billing Information (If different from Report to): <u></u> Company Name: <u></u> Street Address: <u></u> City: <u></u> State: <u></u> Zip: <u></u> Client POC: <u></u> Attention: <u></u> POC#: <u></u> Project Manager: <u></u>	FED-Ex Tracking #: <u></u> Bottle Order Control #: <u></u> Accutest Quote #: <u></u> Accutest Job #: <u>MC28737</u>	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank					
Accutest Sample #	Field ID / Point of Collection	MECH/ID/ Vial #	Collection	Matrix	# of bottles	Number of preserved Bottles	Analysis	LAB USE ONLY
-13	RPI-1 (0.5-1.5) - 030614		Date: 3-6-14 Time: 0930	TW SO	3		<input checked="" type="checkbox"/> VOCs <input checked="" type="checkbox"/> SVOCs <input checked="" type="checkbox"/> Total metals <input checked="" type="checkbox"/> TCUP/SPLP methods <input checked="" type="checkbox"/> PH	
-14	RPI-2 (0.5-1.5) - 030614		Date: 3-6-14 Time: 0940					
-15	RPI-2 (0.5-1.5) - 030614		Date: 3-6-14 Time: 0940					
-16	WT-1 (0.5-1.5) - 030614		Date: 3-6-14 Time: 0955					
-17	WT-2 (0.5-1.5) - 030614		Date: 3-6-14 Time: 1005					
-18	WT-3 (0.5-1.5) - 030614		Date: 3-6-14 Time: 1015					
-19	WT-4 (0.5-1.5) - 030614		Date: 3-6-14 Time: 1025					
-20	WT-5 (0.5-1.5) - 030614		Date: 3-6-14 Time: 1035	TW SO	3		<input checked="" type="checkbox"/> VOCs <input checked="" type="checkbox"/> SVOCs <input checked="" type="checkbox"/> Total metals <input checked="" type="checkbox"/> TCUP/SPLP methods <input checked="" type="checkbox"/> PH	
<u>7.6214</u>								
Data Deliverable Information						Comments / Special Instructions		
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>			Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>					
Sample Custody must be documented below each time samples change possession, including courier delivery.								
Relinquished by Sampler: <u>J. Williams</u>	Date Time: <u>3-6-14/1500</u>	Received By: <u>[Signature]</u>	Relinquished By: <u>[Signature]</u>	Date Time: <u>5-7-14 9:30</u>	Received By: <u>[Signature]</u>	<b>CHICAGO SC</b>		
Relinquished by Sampler: <u>3</u>	Date Time: <u></u>	Received By: <u>3</u>	Relinquished By: <u>FedEx</u>	Date Time: <u></u>	Received By: <u>4</u>			
Relinquished by: <u>5</u>	Date Time: <u></u>	Received By: <u>5</u>	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Preserved where applicable <input type="checkbox"/> Not intact <input type="checkbox"/>	On Ice: <input type="checkbox"/>	Cooler Temp.: <input type="checkbox"/>		

5.1  
5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

14000 block of US 14 (between Washington Street and Sunset Ridge Road)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.335444722 Longitude: -88.482658127

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.335444722 Longitude: -88.482658127

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS VL9-1 AND VL9-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-42. SEE FIGURE 3-8 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28688

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

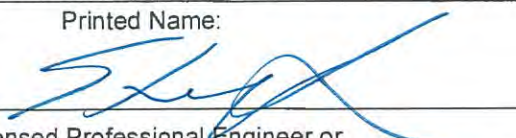
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

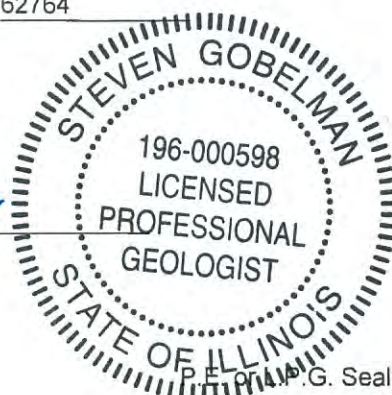
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



P.E., L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-42**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL9-1(0.5-1.5)-030414	VL9-2(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	
Location ID	VL9-1	VL9-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8	8	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	1.5	2.1	30
Ethylbenzene	0.94 J	1.3 J	13000
Methylene chloride	1.4 J	1.2 J	20
Toluene	3.3 J	4.6 J	12000
Xylene (Total)	2.1 J	3.3	5600
<b>SVOCs (ug/kg)</b>			
bis(2-Ethylhexyl)phthalate	23.8 J	ND	46000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	4.7	5.2	11.3 / 13
Barium, Total	109	45.3	1500
Beryllium, Total	0.46	0.24 J	22
Cadmium, Total	0.16 J	0.13 J	5.2
Calcium, Total	4710	29900	---
Chromium, Total	13.1	8.5	21
Cobalt, Total	7.9	6.6	20
Copper, Total	10.1	13.5	2900
Iron, Total	12800	12400	15000 / 15900
Lead, Total	12.6	8.2	107
Magnesium, Total	3460	18300	325000
Manganese, Total	352	547	630 / 636
Mercury, Total	0.027 J	0.014 J	0.89
Nickel, Total	11.9	10.9	100
Potassium, Total	688	464	---
Selenium, Total	0.47 J	ND	1.3
Silver, Total	0.13 J	ND	4.4
Sodium, Total	1630	2550	---
Thallium, Total	0.17 J	ND	2.6
Vanadium, Total	25.4	20	550
Zinc, Total	38.9 J	33 J	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	0.0082 J	ND	0.05
Barium, TCLP	1.2	0.27 J	2
Cadmium, TCLP	0.0009 J	0.0009 J	0.005
Cobalt, TCLP	0.038 J	ND	1
Copper, TCLP	0.014 J	0.01 J	0.65
Iron, TCLP	1.3	ND	5
Lead, TCLP	0.002 J	ND	0.0075
Manganese, TCLP	15.5	1.1	0.15
Nickel, TCLP	0.018 J	0.0086 J	0.1
Selenium, TCLP	0.0081 J	0.0078 J	0.05
Silver, TCLP	ND	0.0011 J	0.05
Zinc, TCLP	0.022 J	0.04 J	5

**Summary Table of ISGS Site No. 2792-42**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL9-1(0.5-1.5)-030414	VL9-2(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	
Location ID	VL9-1	VL9-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.052	0.033	0.05
Barium, SPLP	1.1	0.31 J	2
Beryllium, SPLP	0.0048	0.0024 J	0.004
Cadmium, SPLP	0.0019 J	0.0012 J	0.005
Chromium, SPLP	0.14	0.071	0.1
Cobalt, SPLP	0.055	0.024 J	1
Copper, SPLP	0.15	0.098	0.65
Iron, SPLP	131	79.3	5
Lead, SPLP	0.1	0.047	0.0075
Manganese, SPLP	4.7 J	1.6 J	0.15
Mercury, SPLP	0.00032	0.00014 J	0.002
Nickel, SPLP	0.11	0.069	0.1
Selenium, SPLP	0.006 J	0.0049 J	0.05
Zinc, SPLP	0.4	0.28	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28688

Sampling Date: 03/04/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **266**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> VL9-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-3	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63758.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.56 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.4	ug/kg	
71-43-2	Benzene	1.5	0.61	0.41	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.26	ug/kg	
75-25-2	Bromoform	ND	2.4	0.43	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.74	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.8	ug/kg	
75-15-0	Carbon disulfide	ND	6.1	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.27	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.1	0.92	ug/kg	
67-66-3	Chloroform	ND	2.4	0.21	ug/kg	
74-87-3	Chloromethane	ND	6.1	0.69	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.39	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.51	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.55	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.51	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.51	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.32	ug/kg	
100-41-4	Ethylbenzene	0.94	2.4	0.84	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.93	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.1	0.66	ug/kg	
75-09-2	Methylene chloride	1.4	2.4	0.65	ug/kg	J
100-42-5	Styrene	ND	6.1	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.48	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.38	ug/kg	
108-88-3	Toluene	3.3	6.1	0.25	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.27	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.70	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	2.1	2.4	0.27	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
627-27-0	3-Buten-1-ol	6.09	11	ug/kg	JN
109-66-0	Pentane	6.48	15	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	8.9	ug/kg	JN
	Total TIC, Volatile		34.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> VL9-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-3	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37374.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	88	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL9-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	23.8	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	76%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.6
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5300	ug/kg	JN
	Total TIC, Semi-Volatile		5300	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	4.7	0.87	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	109	4.4	0.063	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.46	0.35	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.16 B	0.35	0.037	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	4710	440	5.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	13.1	0.87	0.083	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	7.9	4.4	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	10.1	2.2	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	12800	8.7	0.76	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	12.6	0.87	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	3460	440	4.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	352	1.3	0.035	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.027 B	0.035	0.0078	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	11.9	3.5	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	688	440	7.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.47 B	0.87	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.13 B	0.44	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1630	440	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.17 B	0.87	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	25.4	0.87	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	38.9	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16856
- (3) Prep QC Batch: MP22621
- (4) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL9-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-3 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.6
--	--

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.6		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.0		su	1	03/07/14	MA	SW846 9045D

---

RL = Reporting Limit

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# Report of Analysis

<b>Client Sample ID:</b> VL9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-3A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0082 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	1.2	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.038 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.014 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	1.3			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0020 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	15.5			0.15	0.0081	mg/l	10	03/12/14	03/14/14	EAL SW846 6010C <sup>3</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0081 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.022 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Instrument QC Batch: MA16871
- (4) Prep QC Batch: MP22645
- (5) Prep QC Batch: MP22649

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.8  
4

## Report of Analysis

<b>Client Sample ID:</b> VL9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-3B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.052		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0048		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0019 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.055		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	131		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.10		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	4.7		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00032		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0060 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.40		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.9  
4

## Report of Analysis

<b>Client Sample ID:</b> VL9-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-4	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63759.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.79 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	2.1	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.31	ug/kg	
100-41-4	Ethylbenzene	1.3	2.3	0.80	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.63	ug/kg	
75-09-2	Methylene chloride	1.2	2.3	0.62	ug/kg	J
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	4.6	5.8	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL9-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	3.3	2.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.10	14	ug/kg	JN
109-66-0	Pentane	6.49	12	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.83	10	ug/kg	JN
110-54-3	Hexane	8.46	7.9	ug/kg	JN
142-82-5	Heptane	10.51	6.1	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	10	ug/kg	JN
	Total TIC, Volatile		60	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.10  
4

## Report of Analysis

<b>Client Sample ID:</b> VL9-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-4	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37375.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	88	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL9-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-4	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.4	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-130%
4165-62-2	Phenol-d5	76%		30-130%
118-79-6	2,4,6-Tribromophenol	75%		30-130%
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL9-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-4	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

### ABN Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	87%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL9-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.86	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.2	0.86	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	45.3	4.3	0.063	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.24 B	0.35	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.13 B	0.35	0.037	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	29900	430	5.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	8.5	0.86	0.082	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.6	4.3	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	13.5	2.2	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	12400	8.6	0.75	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	8.2	0.86	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	18300	430	4.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	547	1.3	0.035	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.014 B	0.034	0.0075	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	10.9	3.5	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	464	430	7.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.30 U	0.86	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2550	430	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.11 U	0.86	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	20.0	0.86	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	33.0	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16856
- (3) Prep QC Batch: MP22621
- (4) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> VL9-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.7		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.0		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> VL9-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-4A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.27 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.010 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0086 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0078 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0011 B	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.040 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL9-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-4B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.033		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.31 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0024 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0012 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.071		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.024 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.098		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	79.3		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.047		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.6		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00014 B		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.069		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0049 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.28		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #  
Accutest Quote #  
Bottle Order Control #  
Accutest Job # **MC28688**

Client / Reporting Information			Project Information								Requested Analysis ( see TEST CODE sheet)												Matrix Codes
Company Name <i>Weston Solutions</i>			Project Name <i>FDOT-048 McHenry County</i>																				DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <i>750 E. Bunker Ct Ste 500</i>			Street:																				
City State Zip <i>Norwich Hills IL 60061</i>			City:																				
Project Contact <i>S. Babusankumar</i>			Project#																				
Phone # <i>847-918-4018</i>			Client POB																				
Fax # <i>-4055</i>			Project Manager																				
Sampler(s) Name(s) <i>T. Wells</i>			Attention:																				
Phone # <i>847-918-4130</i>			POB#																				
Accutest Sample # <i>MC28688</i>			Collection								Number of preserved Bottles VOCs SUDCs Total Metals TELP/SPLP Metals PH												
Field ID / Point of Collection			MED/HD/ Viol #		Date	Time	Sampled by	Matrix	# of bottles	HCF	MSCH	INCO	INCOA	INCOB	DI Washer	MEDIA	ENCOBIE	Blank	LAB USE ONLY				
<i>13</i>	<i>PV-4(0.5-1.5)-030414</i>				<i>3-4-14</i>	<i>1400</i>	<i>TW</i>	<i>SO</i>	<i>3</i>														
<i>14</i>	<i>PV-5(0.5-1.5)-030414</i>					<i>1415</i>																	
<i>15</i>	<i>PV-6(0.5-1.5)-030414</i>					<i>1425</i>																	
<i>16</i>	<i>RE9-1(0.5-1.5)-030414</i>																						
<i>17</i>	<i>RE9-2(0.5-1.5)-030414</i>				<i>3-4-14</i>	<i>1450</i>	<i>TW</i>	<i>SO</i>	<i>3</i>														
Turnaround Time ( Business days)			Approved By (Accutest PM) / Date:								<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULL T1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary												
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink											Comments / Special Instructions   												
Sample Custody must be documented below each time samples change possession, including courier delivery. <span style="float: right;"><b>CHICAGO DC</b></span>																							
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Custody Seal #		<input type="checkbox"/> Intact	Preserved where applicable	<input type="checkbox"/> On Ice	Cooler Temp.												
<i>1</i> <i>T. Wells</i>	<i>3-4-14/1510</i>	<i>[Signature]</i>	<i>2</i> <i>FedEx</i>	<i>3/5/14 9:30</i>	<i>[Signature]</i>																		
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:																		
<i>3</i>		<i>3</i>	<i>4</i>		<i>4</i>																		
Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:																		
<i>5</i>		<i>5</i>																					

5.1  
5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
14719 Washington Street

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.336354629 Longitude: -88.484084500  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.336354629 Longitude: -88.484084500

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION HT-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-43. SEE FIGURE 3-8 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28735

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

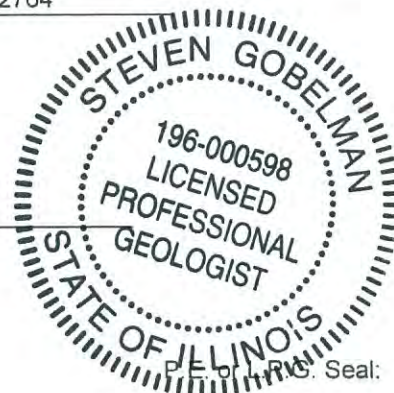
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-43**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	HT-1(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	HT-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Acetone	21.2 J	25000
Benzene	0.73	30
Methylene chloride	2 J	20
Toluene	1.1 J	12000
Xylene (Total)	2.3	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)anthracene	274 J	900 / 1100 / 1800
Benzo(a)pyrene	257 J	90 / 1300 / 2100
Benzo(b)fluoranthene	359 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	250 J	2300000
Benzo(k)fluoranthene	120 J	9000
Chrysene	268 J	88000
Fluoranthene	426 J	3100000
Indeno(1,2,3-cd)pyrene	157 J	900 / 900 / 1600
Phenanthrene	195 J	210000
Pyrene	517 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	3.6	11.3 / 13
Barium, Total	18.9	1500
Beryllium, Total	0.14 J	22
Cadmium, Total	0.081 J	5.2
Calcium, Total	130000 J	---
Chromium, Total	6.8	21
Cobalt, Total	2.5 J	20
Copper, Total	8.4	2900
Iron, Total	9730	15000 / 15900
Lead, Total	18.2	107
Magnesium, Total	60800	325000
Manganese, Total	302	630 / 636
Mercury, Total	0.01 J	0.89
Nickel, Total	9.6	100
Potassium, Total	477	---
Sodium, Total	1860	---
Thallium, Total	0.45 J	2.6
Vanadium, Total	18.9	550
Zinc, Total	27.5 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0036 J	0.05
Barium, TCLP	0.2 J	2
Cadmium, TCLP	0.0011 J	0.005
Cobalt, TCLP	0.0094 J	1
Iron, TCLP	0.22	5
Lead, TCLP	0.0074 J	0.0075
Manganese, TCLP	2.8	0.15
Nickel, TCLP	0.019 J	0.1
Selenium, TCLP	0.0056 J	0.05
Zinc, TCLP	0.021 J	5



**Summary Table of ISGS Site No. 2792-43**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	HT-1(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	HT-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.004 J	0.05
Barium, SPLP	0.038 J	2
Beryllium, SPLP	0.0003 J	0.004
Chromium, SPLP	0.0093 J	0.1
Cobalt, SPLP	0.0032 J	1
Copper, SPLP	0.0098 J	0.65
Iron, SPLP	7.6	5
Lead, SPLP	0.021	0.0075
Manganese, SPLP	0.16	0.15
Nickel, SPLP	0.0076 J	0.1
Zinc, SPLP	0.038 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



04/17/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28735

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **202**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	HT-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28735-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28729.D	1	03/17/14	AMY	n/a	n/a	MSV1076
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.89 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	21.2	12	3.2	ug/kg	
71-43-2	Benzene	0.73	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.87	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.80	ug/kg	
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.62	ug/kg	
75-09-2	Methylene chloride	2.0	2.3	0.61	ug/kg	J
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	1.1	5.8	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	HT-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28735-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.66	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	2.3	2.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	77%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	HT-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28735-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18161.D	5	03/12/14	KR	03/08/14	OP37105	MSW795
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	79	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	274	550	71	ug/kg	J
50-32-8	Benzo(a)pyrene	257	550	59	ug/kg	J
205-99-2	Benzo(b)fluoranthene	359	550	69	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	250	550	55	ug/kg	J
207-08-9	Benzo(k)fluoranthene	120	550	83	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	268	550	68	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	HT-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28735-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	426	550	75	ug/kg	J
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	157	550	61	ug/kg	J
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	69	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	195	550	74	ug/kg	J
129-00-0	Pyrene	517	550	64	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		30-130%
4165-62-2	Phenol-d5	59%		30-130%
118-79-6	2,4,6-Tribromophenol	65%		30-130%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	67%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> HT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	71%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.62	5100	ug/kg	JN
	Total TIC, Semi-Volatile		5100	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.4  
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## Report of Analysis

<b>Client Sample ID:</b> HT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis**

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.6	0.90	0.19	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	18.9	4.5	0.066	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.14 B	0.36	0.022	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.081 B	0.36	0.038	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	130000	4500	57	mg/kg	10	03/11/14	03/14/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	6.8	0.90	0.086	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	2.5 B	4.5	0.042	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	8.4	2.3	0.50	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	9730	9.0	0.79	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	18.2	0.90	0.15	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	60800	450	4.6	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	302	1.4	0.036	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.010 B	0.036	0.0079	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	9.6	3.6	0.040	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	477	450	7.7	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1860	450	3.0	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.45 B	0.90	0.12	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.9	0.90	0.12	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	27.5	1.8	0.15	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16853
- (2) Instrument QC Batch: MA16854
- (3) Instrument QC Batch: MA16859
- (4) Prep QC Batch: MP22640
- (5) Prep QC Batch: MP22650

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.4  
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## Report of Analysis

<b>Client Sample ID:</b> HT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.5		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.4		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.4  
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## Report of Analysis

<b>Client Sample ID:</b> HT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-2A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0036 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.20 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0094 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.22			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0074 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.8			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.019 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0056 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.021 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> HT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-2B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0040 B		0.010	0.0029	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.038 B		0.50	0.00081	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00030 B		0.0040	0.00025	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.0093 B		0.010	0.0014	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0032 B		0.050	0.00040	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.0098 B		0.025	0.0070	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Iron	7.6		0.10	0.020	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.021		0.010	0.0017	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.16		0.015	0.00081	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.0076 B		0.040	0.00057	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.038 B		0.10	0.00050	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

14000 block of Washington Street

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.335914500 Longitude: -88.483113568  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.335914500 Longitude: -88.483113568

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION VL10-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-44. SEE FIGURE 3-8 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28735

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

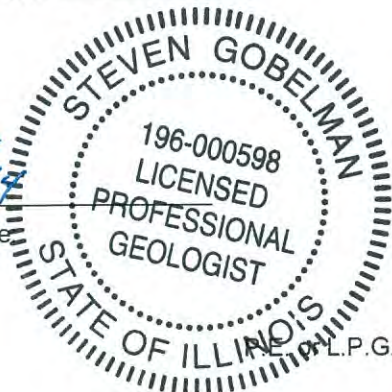
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date



L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-44**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL10-1(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	
Location ID	VL10-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.5	30
Ethylbenzene	0.82 J	13000
Methylene chloride	0.95 J	20
Toluene	2.7 J	12000
Xylene (Total)	2 J	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	82.7 J	46000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	7	11.3 / 13
Barium, Total	43.3	1500
Beryllium, Total	0.33 J	22
Cadmium, Total	0.057 J	5.2
Calcium, Total	71000	---
Chromium, Total	11.6 J	21
Cobalt, Total	6.5	20
Copper, Total	16.4	2900
Iron, Total	14900	15000 / 15900
Lead, Total	10.3	107
Magnesium, Total	34200	325000
Manganese, Total	400 J	630 / 636
Mercury, Total	0.016 J	0.89
Nickel, Total	15	100
Potassium, Total	851	---
Sodium, Total	3130	---
Thallium, Total	0.13 J	2.6
Vanadium, Total	25.7	550
Zinc, Total	44 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.58	2
Cadmium, TCLP	0.0009 J	0.005
Cobalt, TCLP	0.0032 J	1
Copper, TCLP	0.0078 J	0.65
Iron, TCLP	0.02 J	5
Manganese, TCLP	2.2	0.15
Nickel, TCLP	0.014 J	0.1
Selenium, TCLP	0.0098 J	0.05
Zinc, TCLP	0.0092 J	5

**Summary Table of ISGS Site No. 2792-44**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL10-1(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	
Location ID	VL10-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.056	0.05
Barium, SPLP	0.45 J	2
Beryllium, SPLP	0.0033 J	0.004
Cadmium, SPLP	0.0018 J	0.005
Chromium, SPLP	0.095	0.1
Cobalt, SPLP	0.033 J	1
Copper, SPLP	0.16	0.65
Iron, SPLP	128 J	5
Lead, SPLP	0.067	0.0075
Manganese, SPLP	1.7	0.15
Mercury, SPLP	0.0002	0.002
Nickel, SPLP	0.11	0.1
Selenium, SPLP	0.0053 J	0.05
Silver, SPLP	0.001 J	0.05
Zinc, SPLP	0.42 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.





04/17/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28735

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **202**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28735-1	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28691.D	1	03/14/14	AMY	n/a	n/a	MSV1075

Run #1	Initial Weight	Final Volume
Run #2	4.41 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	39.2	13	3.6	ug/kg	
71-43-2	Benzene	1.9	0.64	0.43	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.27	ug/kg	
75-25-2	Bromoform	ND	2.6	0.45	ug/kg	
74-83-9	Bromomethane	ND	2.6	0.77	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.9	ug/kg	
75-15-0	Carbon disulfide	0.80	6.4	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.6	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.97	ug/kg	
67-66-3	Chloroform	ND	2.6	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.72	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.41	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.6	0.34	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.6	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.6	0.53	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.6	0.58	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	0.53	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.6	0.53	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.54	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.34	ug/kg	
100-41-4	Ethylbenzene	1.5	2.6	0.88	ug/kg	J
591-78-6	2-Hexanone	ND	13	0.97	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.6	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.4	0.69	ug/kg	
75-09-2	Methylene chloride	3.7	2.6	0.68	ug/kg	
100-42-5	Styrene	ND	6.4	0.22	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.50	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	0.40	ug/kg	
108-88-3	Toluene	4.4	6.4	0.26	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.28	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
 4

## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.73	ug/kg	
79-01-6	Trichloroethene	ND	2.6	0.31	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	1.2	ug/kg	
1330-20-7	Xylene (total)	3.1	2.6	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	26	ug/kg	JN
109-66-0	Pentane	2.43	17	ug/kg	JN
110-54-3	Hexane	4.25	8.5	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.33	4.1	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.82	3	ug/kg	JN
142-82-5	Heptane	7.56	5.9	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.33	9.6	ug/kg	JN
583-57-3	Cyclohexane, 1,2-dimethyl-	9.95	1.6	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.56	1.8	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.96	2.5	ug/kg	JN
13389-42-9	2-Octene, (E)-	13.45	1.6	ug/kg	JN
	Total TIC, Volatile		81.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28735-1	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18160.D	1	03/12/14	KR	03/08/14	OP37105	MSW795
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL10-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28735-1	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	90%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.62	6400	ug/kg JN
	Total TIC, Semi-Volatile		6400	ug/kg J

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.0	0.90	0.19	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	17.7	4.5	0.065	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.15 B	0.36	0.021	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.36	0.038	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	94500	4500	56	mg/kg	10	03/11/14	03/14/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	10.2	0.90	0.085	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.1 B	4.5	0.042	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	11.5	2.2	0.50	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11100	9.0	0.78	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.6	0.90	0.15	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	43000	450	4.6	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	291	1.3	0.036	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0089 B	0.034	0.0074	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	10.7	3.6	0.039	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	581	450	7.7	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	884	450	3.0	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.39 B	0.90	0.12	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.2	0.90	0.12	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	27.8	1.8	0.14	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16853
- (2) Instrument QC Batch: MA16854
- (3) Instrument QC Batch: MA16859
- (4) Prep QC Batch: MP22640
- (5) Prep QC Batch: MP22650

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.1  
 4

## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.6		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.1		su	1	03/11/14	MA	SW846 9045D

---

RL = Reporting Limit

4.1  
4



## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-1A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.26 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0017 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0027 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0056 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0048 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-1B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.026		0.010	0.0029	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.24 B		0.50	0.00081	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0014 B		0.0040	0.00025	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.042		0.010	0.0014	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.015 B		0.050	0.00040	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.070		0.025	0.0070	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Iron	51.8		0.10	0.020	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.024		0.010	0.0017	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.71		0.015	0.00081	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.046		0.040	0.00057	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.18		0.10	0.00050	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.3  
4





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
14417 to 14513 Washington Street

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.334268384 Longitude: -88.480186329  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.334268384 Longitude: -88.480186329

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS RES3-1 AND RES3-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-45. SEE FIGURE 3-8 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28735 AND MC58736

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14

Date:



Seal:

**Summary Table of ISGS Site No. 2792-45**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RES3-1(0.5-1.5)-030614D	RES3-1(0.5-1.5)-030614	RES3-2(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RES3-1	RES3-1	RES3-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.7	8.8	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Acetone	37.5 J	ND	ND	25000
Benzene	3.9	2.4	2	30
Ethylbenzene	2.7	1.3 J	1.1 J	13000
Methylene chloride	2.7	1.8 J	1.9 J	20
Toluene	7.8	4.9 J	4.1 J	12000
Xylene (Total)	5.5	3	2.6	5600
<b>SVOCs (ug/kg)</b>	None Detected			
<b>Total Metals (mg/kg)</b>				
Antimony, Total	ND	ND	0.21 J	5
Arsenic, Total	6.8	6.5	3.9	11.3 / 13
Barium, Total	34.9	26.3	21.6	1500
Beryllium, Total	0.34 J	0.22 J	0.19 J	22
Cadmium, Total	ND	ND	0.055 J	5.2
Calcium, Total	46400 J	77500	127000	---
Chromium, Total	12.5	8.8 J	6.6	21
Cobalt, Total	6.3	5.1	3.4 J	20
Copper, Total	15.2	16.6	10.1	2900
Iron, Total	15100 J	13400 J	10200	15000 / 15900
Lead, Total	9.3	8	4.8	107
Magnesium, Total	27000 J	39600	63500	325000
Manganese, Total	298 J	319 J	574	630 / 636
Mercury, Total	0.01 J	0.011 J	0.017 J	0.89
Nickel, Total	14	11.9	8.1	100
Potassium, Total	925	793	570	---
Sodium, Total	1630	1080 J	1800	---
Thallium, Total	0.42 J	0.35 J	0.36 J	2.6
Vanadium, Total	24.9	20.5	12.6	550
Zinc, Total	35.5 J	34.5 J	24.2	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	0.0036 J	ND	ND	0.05
Barium, TCLP	0.33 J	0.3 J	0.31 J	2
Cadmium, TCLP	0.001 J	0.0007 J	0.0008 J	0.005
Cobalt, TCLP	0.015 J	0.0095 J	0.0046 J	1
Copper, TCLP	0.009 J	ND	ND	0.65
Lead, TCLP	0.0017 J	ND	ND	0.0075
Manganese, TCLP	3	2.2	1.9	0.15
Nickel, TCLP	0.017 J	0.017 J	0.014 J	0.1
Selenium, TCLP	0.0056 J	ND	ND	0.05
Zinc, TCLP	0.0063 J	0.0047 J	0.0088 J	5

**Summary Table of ISGS Site No. 2792-45**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RES3-1(0.5-1.5)-030614D	RES3-1(0.5-1.5)-030614	RES3-2(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RES3-1	RES3-1	RES3-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
SPLP Metals (mg/l)				
Arsenic, SPLP	0.069	0.061	0.057	0.05
Barium, SPLP	0.46 J	0.36 J	0.39 J	2
Beryllium, SPLP	0.0047	0.0036 J	0.0038 J	0.004
Cadmium, SPLP	0.0009 J	0.0005 J	0.0006 J	0.005
Chromium, SPLP	0.15	0.1	0.12	0.1
Cobalt, SPLP	0.048 J	0.046 J	0.039 J	1
Copper, SPLP	0.18	0.18	0.17	0.65
Iron, SPLP	167	137	136	5
Lead, SPLP	0.086	0.073	0.062	0.0075
Manganese, SPLP	2	1.8	1.7	0.15
Mercury, SPLP	0.00028	0.00023	0.00025	0.002
Nickel, SPLP	0.16	0.14	0.14	0.1
Selenium, SPLP	ND	ND	0.0056 J	0.05
Zinc, SPLP	0.46 J	0.42 J	0.41 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28735

Sampling Date: 03/06/14

Report to:

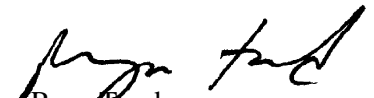
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **202**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b>	RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28735-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.8
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28693.D	1	03/15/14	AMY	n/a	n/a	MSV1075
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.69 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	37.5	12	3.3	ug/kg	
71-43-2	Benzene	3.9	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.31	ug/kg	
100-41-4	Ethylbenzene	2.7	2.3	0.80	ug/kg	
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.63	ug/kg	
75-09-2	Methylene chloride	2.7	2.3	0.62	ug/kg	
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	7.8	5.8	0.24	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	5.5	2.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	36	ug/kg	JN
109-66-0	Pentane	2.43	24	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.84	7.4	ug/kg	JN
110-54-3	Hexane	4.25	13	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.32	6.6	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.82	3.7	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.37	2.8	ug/kg	JN
142-82-5	Heptane	7.56	8.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.34	15	ug/kg	JN
5963-74-6	Hydroxylamine, O-pentyl-	9.15	3.1	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.57	2.2	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.55	2.3	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.97	4.1	ug/kg	JN
	Total TIC, Volatile		128.4	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
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## Report of Analysis

<b>Client Sample ID:</b>	RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28735-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18162.D	1	03/12/14	KR	03/08/14	OP37105	MSW795
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	67	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	27	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28735-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.4	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	9.9	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	13	ug/kg	
99-09-2	3-Nitroaniline	ND	540	29	ug/kg	
100-01-6	4-Nitroaniline	ND	540	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	90%		30-130%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5900	ug/kg	JN
	Total TIC, Semi-Volatile		5900	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.8	0.92	0.19	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	34.9	4.6	0.066	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.34 B	0.37	0.022	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.039 U	0.37	0.039	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	46400	460	5.7	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	12.5	0.92	0.087	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.3	4.6	0.043	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	15.2	2.3	0.51	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	15100	9.2	0.80	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	9.3	0.92	0.15	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	27000	460	4.7	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	298	1.4	0.037	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.010 B	0.035	0.0077	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	14.0	3.7	0.040	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	925	460	7.8	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1630	460	3.0	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.42 B	0.92	0.12	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	24.9	0.92	0.12	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	35.5	1.8	0.15	mg/kg	1	03/11/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16853
- (2) Instrument QC Batch: MA16854
- (3) Prep QC Batch: MP22640
- (4) Prep QC Batch: MP22650

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.8		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.7		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.7  
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## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-3A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0036 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.33 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.015 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0090 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.0			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0056 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0063 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.8  
4



## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28735-3B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.069		0.010	0.0029	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.46 B		0.50	0.00081	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0047		0.0040	0.00025	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00090 B		0.0040	0.00050	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.048 B		0.050	0.00040	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.18		0.025	0.0070	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Iron	167		0.10	0.020	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.086		0.010	0.0017	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.0		0.015	0.00081	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00028		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.16		0.040	0.00057	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.46		0.10	0.00050	mg/l	1	03/17/14	03/18/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63850.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	4.62 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	2.4	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.90	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.50	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	1.3	2.4	0.82	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.90	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.64	ug/kg	
75-09-2	Methylene chloride	1.8	2.4	0.63	ug/kg	J
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	4.9	5.9	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.55  
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## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.68	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	3.0	2.4	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-28-5	Isobutane	4.77	76	ug/kg	JN
106-97-8	Butane	5.09	53	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	28	ug/kg	JN
109-66-0	Pentane	6.48	23	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.83	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7.2	ug/kg	JN
110-54-3	Hexane	8.46	13	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	9.2	ug/kg	JN
110-82-7	Cyclohexane	9.91	8.8	ug/kg	JN
142-82-5	Heptane	10.51	6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
	Total TIC, Volatile		251.2	ug/kg	J

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## Report of Analysis

<b>Client Sample ID:</b>	RES3-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-19	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37444.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	88	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

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<b>Lab Sample ID:</b>	MC28736-19	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	88%		30-130%
4165-62-2	Phenol-d5	85%		30-130%
118-79-6	2,4,6-Tribromophenol	96%		30-130%
4165-60-0	Nitrobenzene-d5	87%		30-130%
321-60-8	2-Fluorobiphenyl	92%		30-130%

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<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	106%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6300	ug/kg JN
	Total TIC, Semi-Volatile		6300	ug/kg J

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# Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.93	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.5	0.93	0.19	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	26.3	4.6	0.067	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.22 B	0.37	0.022	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.039 U	0.37	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	77500	4600	58	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.8	0.93	0.088	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.1	4.6	0.044	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	16.6	2.3	0.52	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13400	9.3	0.81	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.0	0.93	0.16	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	39600	460	4.8	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	319	1.4	0.037	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.033	0.0072	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	11.9	3.7	0.041	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	793	460	7.9	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.93	0.32	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.46	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1080	460	3.1	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.35 B	0.93	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	20.5	0.93	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	34.5	1.9	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.3		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.8		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

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## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-19A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.3
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.30 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00070 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0095 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.2			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0047 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RES3-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-19B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.061		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.36 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0036 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.10		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.046 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.18		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	137		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.073		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.8		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00023		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.14		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.42		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.57  
4

# Report of Analysis

<b>Client Sample ID:</b> RES3-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-20	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63851.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.37 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.6	ug/kg	
71-43-2	Benzene	2.0	0.65	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.27	ug/kg	
75-25-2	Bromoform	ND	2.6	0.46	ug/kg	
74-83-9	Bromomethane	ND	2.6	0.78	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.0	ug/kg	
75-15-0	Carbon disulfide	ND	6.5	0.17	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.5	0.98	ug/kg	
67-66-3	Chloroform	ND	2.6	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.5	0.73	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.42	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.6	0.35	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.6	0.42	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.6	0.54	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.6	0.59	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	0.54	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.6	0.54	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.54	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.34	ug/kg	
100-41-4	Ethylbenzene	1.1	2.6	0.89	ug/kg	J
591-78-6	2-Hexanone	ND	13	0.98	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.6	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.5	0.70	ug/kg	
75-09-2	Methylene chloride	1.9	2.6	0.69	ug/kg	J
100-42-5	Styrene	ND	6.5	0.22	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.51	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	0.41	ug/kg	
108-88-3	Toluene	4.1	6.5	0.27	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.28	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.58  
 4

## Report of Analysis

<b>Client Sample ID:</b> RES3-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-20	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.74	ug/kg	
79-01-6	Trichloroethene	ND	2.6	0.32	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	1.2	ug/kg	
1330-20-7	Xylene (total)	2.6	2.6	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-28-5	Isobutane	4.78	70	ug/kg	JN
106-97-8	Butane	5.10	54	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	27	ug/kg	JN
109-66-0	Pentane	6.48	29	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.15	7	ug/kg	JN
110-54-3	Hexane	8.46	15	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8.8	ug/kg	JN
110-82-7	Cyclohexane	9.92	8.8	ug/kg	JN
142-82-5	Heptane	10.51	8.1	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	13	ug/kg	JN
	Total TIC, Volatile		240.7	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.58  
4

## Report of Analysis

<b>Client Sample ID:</b>	RES3-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-20	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37445.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RES3-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-20	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		30-130%
4165-62-2	Phenol-d5	83%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	85%		30-130%
321-60-8	2-Fluorobiphenyl	89%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RES3-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-20 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	102%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6400	ug/kg	JN
	Total TIC, Semi-Volatile		6400	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.58  
4

# Report of Analysis

<b>Client Sample ID:</b> RES3-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-20	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.21 B	0.92	0.14	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Arsenic	3.9	0.92	0.19	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Barium	21.6	4.6	0.067	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Beryllium	0.19 B	0.37	0.022	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Cadmium	0.055 B	0.37	0.039	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Calcium	127000	4600	58	mg/kg	10	03/18/14	03/19/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>5</sup>
Chromium	6.6	0.92	0.087	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Cobalt	3.4 B	4.6	0.043	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Copper	10.1	2.3	0.51	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Iron	10200	9.2	0.80	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Lead	4.8	0.92	0.15	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Magnesium	63500	460	4.7	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Manganese	574	1.4	0.037	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Mercury	0.017 B	0.036	0.0079	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	8.1	3.7	0.040	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Potassium	570	460	7.9	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Sodium	1800	460	3.0	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Thallium	0.36 B	0.92	0.12	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Vanadium	12.6	0.92	0.12	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>
Zinc	24.2	1.8	0.15	mg/kg	1	03/18/14	03/19/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>5</sup>

- (1) Instrument QC Batch: MA16882
- (2) Instrument QC Batch: MA16892
- (3) Instrument QC Batch: MA16893
- (4) Prep QC Batch: MP22685
- (5) Prep QC Batch: MP22690

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RES3-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-20	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.58  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.4		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.7		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> RES3-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-20A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.31 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0046 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.9			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0088 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RES3-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-20B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.057		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.39 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0038 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.039 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	136		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.062		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00025		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.14		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0056 B		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.41		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.60  
4







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

500 to 510 Magnet Way

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD dddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.333219681 Longitude: -88.478748137  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

EPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.333219681 Longitude: -88.478748137

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION VLS-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-46. SEE FIGURE 3-8 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28736

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-46**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VLS-1(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	VLS-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.8	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.5	30
Ethylbenzene	0.93 J	13000
Methylene chloride	1.5 J	20
Toluene	3.2 J	12000
Xylene (Total)	1.9 J	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	19.7 J	46000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	5	11.3 / 13
Barium, Total	26.6	1500
Beryllium, Total	0.19 J	22
Calcium, Total	101000	---
Chromium, Total	10.1	21
Cobalt, Total	4.7 J	20
Copper, Total	13.3	2900
Iron, Total	13000	15000 / 15900
Lead, Total	33.9	107
Magnesium, Total	47900	325000
Manganese, Total	406	630 / 636
Mercury, Total	0.0088 J	0.89
Nickel, Total	10.4	100
Potassium, Total	706	---
Silver, Total	0.23 J	4.4
Sodium, Total	1560	---
Vanadium, Total	20.5	550
Zinc, Total	38.1 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.29 J	2
Cadmium, TCLP	0.0008 J	0.005
Cobalt, TCLP	0.0017 J	1
Iron, TCLP	0.026 J	5
Manganese, TCLP	1.3	0.15
Nickel, TCLP	0.012 J	0.1
Zinc, TCLP	0.019 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.026	0.05
Barium, SPLP	0.19 J	2
Beryllium, SPLP	0.0013 J	0.004
Cadmium, SPLP	0.0005 J	0.005
Chromium, SPLP	0.047	0.1
Cobalt, SPLP	0.021 J	1
Copper, SPLP	0.081	0.65
Iron, SPLP	53.7	5
Lead, SPLP	0.18	0.0075
Manganese, SPLP	1.2	0.15
Nickel, SPLP	0.055	0.1
Zinc, SPLP	0.24 J	5


**Summary Table of ISGS Site No. 2792-46**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

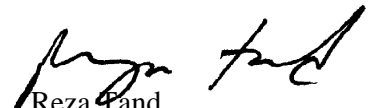
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> VLS-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63849.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	5.44 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.9	2.8	ug/kg	
71-43-2	Benzene	1.5	0.50	0.33	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.35	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.60	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.9	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.75	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.56	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.41	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.45	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.41	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.41	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.26	ug/kg	
100-41-4	Ethylbenzene	0.93	2.0	0.68	ug/kg	J
591-78-6	2-Hexanone	ND	9.9	0.75	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.54	ug/kg	
75-09-2	Methylene chloride	1.5	2.0	0.53	ug/kg	J
100-42-5	Styrene	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.39	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.31	ug/kg	
108-88-3	Toluene	3.2	5.0	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VLS-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.57	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.90	ug/kg	
1330-20-7	Xylene (total)	1.9	2.0	0.22	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	39	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	20	ug/kg	JN
109-66-0	Pentane	6.48	17	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	11	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.2	ug/kg	JN
110-54-3	Hexane	8.46	10	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	6.3	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.9	ug/kg	JN
142-82-5	Heptane	10.51	5.1	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.3	ug/kg	JN
	Total TIC, Volatile		127.8	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VLS-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-18	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37443.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
106-44-5	4-Methylphenol	ND	520	27	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





## Report of Analysis

<b>Client Sample ID:</b> VLS-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-18 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.6
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	105%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.52  
4

## Report of Analysis

<b>Client Sample ID:</b> VLS-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.0	0.95	0.20	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	26.6	4.7	0.069	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.38	0.023	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.040 U	0.38	0.040	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	101000	4700	59	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.1	0.95	0.090	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt <sup>a</sup>	4.7 B	9.5	0.089	mg/kg	2	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	13.3	2.4	0.53	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13000	9.5	0.82	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead <sup>a</sup>	33.9	1.9	0.32	mg/kg	2	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	47900	470	4.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	406	1.4	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0088 B	0.033	0.0072	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel <sup>a</sup>	10.4	7.6	0.083	mg/kg	2	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	706	470	8.1	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.95	0.33	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.23 B	0.47	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1560	470	3.1	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium <sup>a</sup>	0.25 U	1.9	0.25	mg/kg	2	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	20.5	0.95	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	38.1	1.9	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

(1) Instrument QC Batch: MA16857

(2) Instrument QC Batch: MA16859

(3) Instrument QC Batch: MA16882

(4) Prep QC Batch: MP22641

(5) Prep QC Batch: MP22685

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VLS-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-18 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.6
---	--

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.6		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.8		su	1	03/11/14	MA	SW846 9045D

---

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> VLS-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-18A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.29 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0017 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.026 B			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.012 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.019 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VLS-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-18B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.026		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.19 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0013 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.047		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.021 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.081		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	53.7		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.18		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.2		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.055		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.24		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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4



FED-EX Tracking #	Boiler Order Control #
Accutest Quote #	Accutest Job # <u>MC28736</u>

Client / Reporting Information			Project Information				Requested Analysis (see TEST CODE sheet)															Matrix Codes
Company Name <u>Weston Solutions, Inc.</u>			Project Name <u>IDOT #049 McHenry County</u>				<div style="display: flex; flex-direction: column; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px;">VOCs</div> <div style="border: 1px solid black; padding: 5px;">SVOCs</div> <div style="border: 1px solid black; padding: 5px;">Total Metals</div> <div style="border: 1px solid black; padding: 5px;">TCUP/SPC Metals</div> <div style="border: 1px solid black; padding: 5px;">pH</div> </div>															DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment CL - Oil LIO - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <u>750 E Bunker Ct # 500</u>			Billing Information (If different from Report to)																			
City, State, Zip <u>Vernon Hills IL 60061</u>			Company Name																			
Project Contact Name, E-mail <u>S. Babusukumar</u>			Street Address																			
Phone #, Fax # <u>847-918-4000</u>			City, State, Zip																			
Sampler(s) Name(s), Phone # <u>David Jena 574-261-5413</u>			Attention: POB																			
Accutest Sample #	Field ID / Point of Collection	MEQ/DI Viol #	Date	Time	Sampled by	Matrix	# of bottles	PCU	MSD	PMS	PSCA	NONE	D/ Water	MECH	ENDUSE	Other	LAB USE ONLY					
<u>13</u>	<u>AL4-6(0.5-1.5)-030614</u>		<u>3-6-14</u>	<u>10:30</u>	<u>DS</u>	<u>SO</u>	<u>3</u>					<input checked="" type="checkbox"/>										
<u>14</u>	<u>AL4-7(0.5-1.5)-030614</u>			<u>10:45</u>								<input checked="" type="checkbox"/>										
<u>15</u>	<u>AL4-8 (0.5-1.5)-030614</u>			<u>11:00</u>								<input checked="" type="checkbox"/>										
<u>16</u>	<u>GM-1 (0.5-1.5)-030614</u>			<u>11:15</u>								<input checked="" type="checkbox"/>										
<u>17</u>	<u>GM-2 (0.5-1.5)-030614</u>			<u>11:30</u>								<input checked="" type="checkbox"/>										
<u>18</u>	<u>VLS-1 (0.5-1.5)-030614</u>			<u>12:30</u>								<input checked="" type="checkbox"/>										
<u>19</u>	<u>RES3-1(0.5-1.5)-030614</u>			<u>12:50</u>								<input checked="" type="checkbox"/>										
<u>20</u>	<u>RES3-2(0.5-1.5)-030614</u>			<u>13:05</u>								<input checked="" type="checkbox"/>										
Turnaround Time (Business days)			Approved By (Accutest PM): / Date:				Data Deliverable Information										Comments / Special Instructions					
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY							<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____															
Emergency & Rush T/A data available VIA Lablink							Commercial "A" = Results Only Commercial "B" = Results + QC Summary															
Sample Custody must be documented below each time samples change possession, including courier delivery.																						
1 Relinquished by: <u>David Jena</u>		Date Time: <u>3-6-14</u>		Received By: <u>[Signature]</u>		Date Time: <u>3/6/14 3:09</u>		2 Relinquished By: <u>FEDEX</u>		Date Time: <u>3-7-14</u>		Received By: <u>[Signature]</u>										
3 Relinquished by:		Date Time:		Received By:		Date Time:		4 Relinquished By:		Date Time:		Received By:										
5 Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact     Preserved where applicable		<input type="checkbox"/> On Ice     Cooler Temp.										
								<input type="checkbox"/> Not intact		<input type="checkbox"/>		<input type="checkbox"/>										

**MC28736: Chain of Custody**

**Page 2 of 3**



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

14315 to 14413 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.332689860 Longitude: -88.478369807

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

EPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.332689860 Longitude: -88.478369807

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION RES4-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-47. SEE FIGURE 3-9 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28688

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

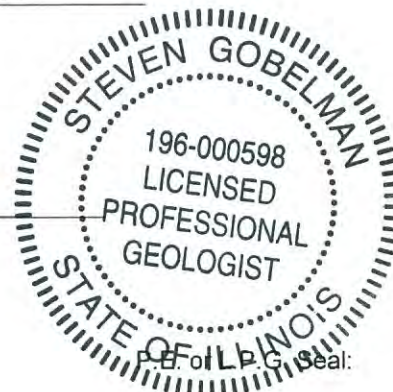
Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-47**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RES4-1(0.5-1.5)-030414	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	
Location ID	RES4-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.2	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.5	30
Carbon disulfide	2.7 J	9000
Ethylbenzene	0.95 J	13000
Methylene chloride	1.4 J	20
Toluene	4.4 J	12000
Xylene (Total)	3.2	5600
<b>SVOCs (ug/kg)</b>	None Detected	
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	4.5	11.3 / 13
Barium, Total	18.5	1500
Beryllium, Total	0.15 J	22
Cadmium, Total	0.042 J	5.2
Calcium, Total	100000	---
Chromium, Total	11.9	21
Cobalt, Total	4.1 J	20
Copper, Total	17.7	2900
Iron, Total	10800	15000 / 15900
Lead, Total	26	107
Magnesium, Total	50500	325000
Manganese, Total	308	630 / 636
Mercury, Total	0.011 J	0.89
Nickel, Total	11.4	100
Potassium, Total	512	---
Sodium, Total	1960	---
Vanadium, Total	22.5	550
Zinc, Total	35.5 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.18 J	2
Cadmium, TCLP	0.0008 J	0.005
Copper, TCLP	0.0075 J	0.65
Manganese, TCLP	1.2	0.15
Nickel, TCLP	0.0077 J	0.1
Selenium, TCLP	0.0081 J	0.05
Silver, TCLP	0.0012 J	0.05
Zinc, TCLP	0.016 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.015	0.05
Barium, SPLP	0.12 J	2
Beryllium, SPLP	0.001 J	0.004
Cadmium, SPLP	0.0006 J	0.005
Chromium, SPLP	0.036	0.1
Cobalt, SPLP	0.0091 J	1
Copper, SPLP	0.048	0.65
Iron, SPLP	35.9	5
Lead, SPLP	0.041	0.0075
Manganese, SPLP	0.51 J	0.15
Nickel, SPLP	0.031 J	0.1
Zinc, SPLP	0.14	5


**Summary Table of ISGS Site No. 2792-47**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28688

Sampling Date: 03/04/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **266**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

  
Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	RES4-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-7	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	94.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63762.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.80 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.1	ug/kg	
71-43-2	Benzene	1.5	0.55	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.66	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	2.7	5.5	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.83	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.46	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	0.95	2.2	0.76	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.83	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.59	ug/kg	
75-09-2	Methylene chloride	1.4	2.2	0.58	ug/kg	J
100-42-5	Styrene	ND	5.5	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	4.4	5.5	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RES4-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.63	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	3.2	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.09	13	ug/kg	JN
75-28-5	Isobutane	6.49	14	ug/kg	JN
763-32-6	3-Buten-1-ol, 3-methyl-	8.47	6.9	ug/kg	JN
110-82-7	Cyclohexane	9.91	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.6	ug/kg	JN
	Total TIC, Volatile		49.1	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	RES4-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-7	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	94.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37378.D	5	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	59	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2600	66	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2600	75	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2600	420	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5200	650	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2600	320	ug/kg	
95-48-7	2-Methylphenol	ND	2600	100	ug/kg	
106-44-5	4-Methylphenol	ND	2600	130	ug/kg	
88-75-5	2-Nitrophenol	ND	2600	69	ug/kg	
100-02-7	4-Nitrophenol	ND	5200	490	ug/kg	
87-86-5	Pentachlorophenol	ND	2600	180	ug/kg	
108-95-2	Phenol	ND	1300	74	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2600	65	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2600	64	ug/kg	
83-32-9	Acenaphthene	ND	520	69	ug/kg	
208-96-8	Acenaphthylene	ND	520	52	ug/kg	
120-12-7	Anthracene	ND	520	63	ug/kg	
56-55-3	Benzo(a)anthracene	ND	520	67	ug/kg	
50-32-8	Benzo(a)pyrene	ND	520	56	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	520	65	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	520	52	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	520	78	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	66	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	53	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	70	ug/kg	
106-47-8	4-Chloroaniline	ND	2600	65	ug/kg	
86-74-8	Carbazole	ND	520	61	ug/kg	
218-01-9	Chrysene	ND	520	65	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	61	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	79	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	93	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	80	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RES4-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-7	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	94.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	67	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	74	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	69	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2600	170	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2600	65	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	520	62	ug/kg	
132-64-9	Dibenzofuran	ND	520	72	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	41	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	65	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	75	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	48	ug/kg	
206-44-0	Fluoranthene	ND	520	71	ug/kg	
86-73-7	Fluorene	ND	520	69	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	81	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	75	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2600	650	ug/kg	
67-72-1	Hexachloroethane	ND	1300	63	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	520	57	ug/kg	
78-59-1	Isophorone	ND	1300	60	ug/kg	
91-57-6	2-Methylnaphthalene	ND	520	66	ug/kg	
88-74-4	2-Nitroaniline	ND	2600	65	ug/kg	
99-09-2	3-Nitroaniline	ND	2600	140	ug/kg	
100-01-6	4-Nitroaniline	ND	2600	65	ug/kg	
91-20-3	Naphthalene	ND	520	83	ug/kg	
98-95-3	Nitrobenzene	ND	1300	70	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	74	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	78	ug/kg	
85-01-8	Phenanthrene	ND	520	70	ug/kg	
129-00-0	Pyrene	ND	520	61	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	72	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	68%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> RES4-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.6
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	80%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	4800	ug/kg	JN
	Total TIC, Semi-Volatile		4800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RES4-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.85	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.5	0.85	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	18.5	4.2	0.061	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.15 B	0.34	0.020	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.042 B	0.34	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	100000	4200	53	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.9	0.85	0.080	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.1 B	4.2	0.040	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	17.7	2.1	0.47	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10800	8.5	0.74	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	26.0	0.85	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	50500	420	4.3	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	308	1.3	0.034	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.034	0.0074	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	11.4	3.4	0.037	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	512	420	7.2	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.29 U	0.85	0.29	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.42	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1960	420	2.8	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.11 U	0.85	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.5	0.85	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	35.5	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RES4-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-7 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 94.6
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	94.6		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.2		su	1	03/07/14	MA	SW846 9045D

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> RES4-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-7A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.18 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0075 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.2			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0077 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0081 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0012 B	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.016 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261.6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RES4-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-7B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 94.6
--	--

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.015		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.12 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0010 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.036		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0091 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.048		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	35.9		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.041		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.51		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.031 B		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.14		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)												Matrix Codes									
Company Name <i>Wexton Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment CL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
Street Address <i>750 E. Banker Ct St. 500</i>		Street:																							
City State Zip <i>Newark IL 60061</i>		City:																							
Project Contact <i>S. Babuskar</i>		Project#																							
Phone # Fax # <i>847-918-7018 -4055</i>		Client PO#																							
Sampler(s) Name(s) Phone # <i>T. Walk 847-918-4130</i>		Project Manager																							
Account # <i>A128688</i>		Collection																							
Field ID / Point of Collection		MECHID / Val #		Date		Time		Sampled by		Matrix		# of bottles		Number of preserved bottles										LAB USE ONLY	
														<input type="checkbox"/> HCL <input type="checkbox"/> NH3 <input type="checkbox"/> NH4 <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> HNO2 <input type="checkbox"/> H2O2 <input type="checkbox"/> DI Water <input type="checkbox"/> MESH <input type="checkbox"/> ENCORE <input type="checkbox"/> Residue											
<i>1 REB-1(0.5-1.5)-030414</i>				<i>3-4-14</i>		<i>1115</i>		<i>TW 50</i>		<i>3</i>		<i>3</i>		<i>VOCs</i> <i>SJOCs</i> <i>Total Metals</i> <i>TCLP/SPL Metals</i> <i>PH</i>											
<i>2 AL4-1(0.5-1.5)-030414</i>						<i>1205</i>																			
<i>3 VL9-1(0.5-1.5)-030414</i>						<i>1215</i>																			
<i>4 VL9-2(0.5-1.5)-030414</i>						<i>1225</i>																			
<i>5 AL4-2(0.5-1.5)-030414</i>						<i>1240</i>																			
<i>6 AL4-3(0.5-1.5)-030414</i>						<i>1250</i>																			
<i>7 RES4-1(0.5-1.5)-030414</i>						<i>1300</i>																			
<i>8 VL11-1(0.5-1.5)-030414</i>						<i>1310</i>																			
<i>9 PV-1(0.5-1.5)-030414</i>						<i>1325</i>																			
<i>10 PV-2(0.5-1.5)-030414</i>						<i>1335</i>																			
<i>11 PV-3(0.5-1.5)-030414</i>						<i>1350</i>																			
<i>12 PV-3(0.5-1.5)-030414</i>				<i>3-4-14</i>		<i>1350</i>		<i>TW 50</i>		<i>3</i>		<i>3</i>		<input checked="" type="checkbox"/> VOCs <input checked="" type="checkbox"/> SJOCs <input checked="" type="checkbox"/> Total Metals <input checked="" type="checkbox"/> TCLP/SPL Metals <input checked="" type="checkbox"/> PH											
Data Deliverable Information												Comments / Special Instructions													
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink				Approved By (Accutest PM): / Date: _____				<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + OC Summary				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____				<i>Loc 145, GFI</i>									
Sample Custody must be documented below each time samples change possession, including courier delivery.																									
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:											
<i>1 T. Walk</i>		<i>3-4-14 / 15:40</i>		<i>[Signature]</i>		<i>3/4/14 15:40</i>		<i>[Signature]</i>		<i>3/5/14 9:20</i>		<i>2 Will Jalk</i>		<i>4</i>											
<i>3</i>				<i>3</i>				<i>4</i>				<i>4</i>													
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Preserved where applicable <input type="checkbox"/>		On Ice <input checked="" type="checkbox"/> Cooler Temp. <i>1.4°C</i>											
<i>5</i>				<i>5</i>																					

5.1  
5

MC28688: Chain of Custody

Page 1 of 3





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

14213 Washington Street

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.331364366 Longitude: -88.476920620

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.331364366 Longitude: -88.476920620

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS GM-1 AND GM-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-48. SEE FIGURE 3-9 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28736

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/19

Date:



L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-48**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	GM-1(0.5-1.5)-030614	GM-2(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	
Location ID	GM-1	GM-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.8	9	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	1.9	1.9	30
Carbon disulfide	ND	2.3 J	9000
Ethylbenzene	0.92 J	1.2 J	13000
Methylene chloride	1.4 J	1.4 J	20
Toluene	3.6 J	3.7 J	12000
Xylene (Total)	2.2	2.4	5600
<b>SVOCs (ug/kg)</b>			
Benzo(a)anthracene	55 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	43.6 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	60 J	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	31.6 J	ND	2300000
Benzo(k)fluoranthene	21.2 J	ND	9000
bis(2-Ethylhexyl)phthalate	17.1 J	ND	46000
Chrysene	40.8 J	ND	88000
Fluoranthene	107 J	19.3 J	3100000
Indeno(1,2,3-cd)pyrene	27.2 J	ND	900 / 900 / 1600
Phenanthrene	57.1 J	ND	210000
Pyrene	89.3 J	15.6 J	2300000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	5.2	4.6	11.3 / 13
Barium, Total	37.1	24.7	1500
Beryllium, Total	0.18 J	0.18 J	22
Cadmium, Total	0.044 J	ND	5.2
Calcium, Total	103000	104000 J	---
Chromium, Total	8.4	8.3	21
Cobalt, Total	4.2 J	3.9 J	20
Copper, Total	15.4	15.4	2900
Iron, Total	12800	10900 J	15000 / 15900
Lead, Total	34.7	12.4	107
Magnesium, Total	50100	48100 J	325000
Manganese, Total	305	335 J	630 / 636
Mercury, Total	ND	0.0082 J	0.89
Nickel, Total	12.2	10.5	100
Potassium, Total	724	725	---
Silver, Total	0.3 J	0.17 J	4.4
Sodium, Total	1250	1390	---
Thallium, Total	ND	0.71 J	2.6
Vanadium, Total	33.6	18.2	550
Zinc, Total	37.1 J	28.9 J	5100
<b>TCLP Metals (mg/l)</b>			
Barium, TCLP	0.27 J	0.24 J	2
Cadmium, TCLP	0.0026 J	0.0012 J	0.005
Cobalt, TCLP	0.0023 J	0.0024 J	1
Copper, TCLP	0.0098 J	ND	0.65
Lead, TCLP	0.0043 J	ND	0.0075
Manganese, TCLP	0.95	1.2	0.15
Nickel, TCLP	0.012 J	0.013 J	0.1
Zinc, TCLP	0.036 J	0.01 J	5

**Summary Table of ISGS Site No. 2792-48**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	GM-1(0.5-1.5)-030614	GM-2(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	3/6/2014	
Location ID	GM-1	GM-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.041	0.043	0.05
Barium, SPLP	0.22 J	0.23 J	2
Beryllium, SPLP	0.0021 J	0.0021 J	0.004
Cadmium, SPLP	0.0009 J	0.0005 J	0.005
Chromium, SPLP	0.062	0.059	0.1
Cobalt, SPLP	0.032 J	0.033 J	1
Copper, SPLP	0.14	0.14	0.65
Iron, SPLP	84.6	87.9	5
Lead, SPLP	0.16	0.056	0.0075
Manganese, SPLP	1.1	1.2	0.15
Nickel, SPLP	0.093	0.091	0.1
Zinc, SPLP	0.36 J	0.32 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

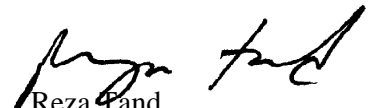
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> GM-1(0.5-1.5)-030614		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-16		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 92.4
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63847.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.63 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.6	2.7	ug/kg	
71-43-2	Benzene	1.9	0.48	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.58	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.6	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	4.8	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.8	0.73	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.40	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.40	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.40	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	0.92	1.9	0.66	ug/kg	J
591-78-6	2-Hexanone	ND	9.6	0.73	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.8	0.52	ug/kg	
75-09-2	Methylene chloride	1.4	1.9	0.51	ug/kg	J
100-42-5	Styrene	ND	4.8	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.38	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	3.6	4.8	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.46  
4

## Report of Analysis

<b>Client Sample ID:</b> GM-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-16	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.55	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.87	ug/kg	
1330-20-7	Xylene (total)	2.2	1.9	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	41	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	22	ug/kg	JN
109-66-0	Pentane	6.48	19	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	12	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.5	ug/kg	JN
110-54-3	Hexane	8.46	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.9	ug/kg	JN
110-82-7	Cyclohexane	9.91	6.1	ug/kg	JN
142-82-5	Heptane	10.51	5.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.8	ug/kg	JN
	Total TIC, Volatile		136.5	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.46  
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## Report of Analysis

<b>Client Sample ID:</b>	GM-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-16	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37441.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	86	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	66	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	99	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	55.0	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	43.6	110	11	ug/kg	J
205-99-2	Benzo(b)fluoranthene	60.0	110	13	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	31.6	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	21.2	110	16	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	270	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	40.8	110	13	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	270	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





## Report of Analysis

<b>Client Sample ID:</b> GM-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-16	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	106%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GM-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-16	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.2	0.88	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	37.1	4.4	0.064	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.18 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.044 B	0.35	0.037	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	103000	4400	55	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.4	0.88	0.084	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt <sup>a</sup>	4.2 B	8.8	0.083	mg/kg	2	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	15.4	2.2	0.49	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12800	8.8	0.77	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead <sup>a</sup>	34.7	1.8	0.30	mg/kg	2	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	50100	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	305	1.3	0.035	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0071 U	0.032	0.0071	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel <sup>a</sup>	12.2	7.0	0.077	mg/kg	2	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	724	440	7.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.30 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1250	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium <sup>a</sup>	0.23 U	1.8	0.23	mg/kg	2	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	33.6	0.88	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	37.1	1.8	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

(1) Instrument QC Batch: MA16857

(2) Instrument QC Batch: MA16859

(3) Instrument QC Batch: MA16882

(4) Prep QC Batch: MP22641

(5) Prep QC Batch: MP22685

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> GM-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-16	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.4		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.8		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> GM-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-16A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.4
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.27 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0026 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0023 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0098 B			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0043 B	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.95			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.012 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.036 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.47  
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## Report of Analysis

<b>Client Sample ID:</b> GM-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-16B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.041		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.22 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0021 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00090 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.062		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.032 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.14		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	84.6		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.093		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.36		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> GM-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63848.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.94 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.1	ug/kg	
71-43-2	Benzene	1.9	0.55	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.66	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	2.3	5.5	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.83	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	1.2	2.2	0.76	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.83	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.59	ug/kg	
75-09-2	Methylene chloride	1.4	2.2	0.58	ug/kg	J
100-42-5	Styrene	ND	5.5	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	3.7	5.5	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.49  
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## Report of Analysis

<b>Client Sample ID:</b> GM-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-17	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 92.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.63	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	2.4	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-28-5	Isobutane	4.78	60	ug/kg	JN
106-97-8	Butane	5.10	49	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	24	ug/kg	JN
109-66-0	Pentane	6.49	21	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.84	14	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.9	ug/kg	JN
110-54-3	Hexane	8.46	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.2	ug/kg	JN
110-82-7	Cyclohexane	9.92	7.3	ug/kg	JN
142-82-5	Heptane	10.51	7.1	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	10	ug/kg	JN
111-65-9	Octane	12.36	5.8	ug/kg	JN
	Total TIC, Volatile		225.3	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GM-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-17	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37442.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	67	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	GM-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-17	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	9.8	ug/kg	
206-44-0	Fluoranthene	19.3	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	13	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	15.6	110	12	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	83%		30-130%
4165-62-2	Phenol-d5	80%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	85%		30-130%
321-60-8	2-Fluorobiphenyl	88%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GM-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	101%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6000	ug/kg JN
	Total TIC, Semi-Volatile		6000	ug/kg J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> GM-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.6	0.95	0.20	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	24.7	4.7	0.069	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.18 B	0.38	0.023	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.040 U	0.38	0.040	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	104000	4700	60	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.3	0.95	0.090	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.9 B	4.7	0.045	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.4	2.4	0.53	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10900	9.5	0.83	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	12.4	0.95	0.16	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	48100	470	4.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	335	1.4	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0082 B	0.033	0.0072	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.5	3.8	0.042	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	725	470	8.1	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.95	0.33	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.17 B	0.47	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1390	470	3.1	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.71 B	0.95	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.2	0.95	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	28.9	1.9	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> GM-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.4		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	9.0		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> GM-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-17A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.4
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.24 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0024 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.2			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.010 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> GM-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-17B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.043		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.23 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0021 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.059		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.033 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.14		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	87.9		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.056		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.2		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.091		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.32		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Client / Reporting Information				Project Information					Requested Analysis ( see TEST CODE sheet)										Matrix Codes																																																																																																				
Company Name Weston Solutions, Inc				Project Name DOT # 043 McHenry County					<table border="1"> <tr><td>VOCs</td><td>SVOCs</td><td>Total Metals</td><td>TCLP/SLCP Metals</td><td>pH</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>										VOCs	SVOCs	Total Metals	TCLP/SLCP Metals	pH																																																																																															DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment CI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
VOCs	SVOCs	Total Metals	TCLP/SLCP Metals	pH																																																																																																																			
Street Address 750 E Bunker Ct # 500				Street																																																																																																																			
City, State, Zip Vernon Hills IL 60061				City																																																																																																																			
Project Contact S. Babusurkumar				Project #																																																																																																																			
Phone # 947-919-4000				Client PO#																																																																																																																			
Sampler(s) Name(s) David Sena				Project Manager																																																																																																																			
Field ID / Point of Collection				Collection					Number of preserved Bottles										LAB USE ONLY																																																																																																				
Accutest Sample #	MECH/DI/Val #	Date	Time	Sampled by	Matrix	# of bottles	NCI	NACN	NRND	PRSD	NONE	DY WWT	MEOH	ENCODE	Biosafe	VOCs	SVOCs	Total Metals	TCLP/SLCP Metals	pH																																																																																																			
-1	EP-8 (0.5-1.5)-030614	3-6-14	7:55	DS	So	3										X	X	X	X	X																																																																																																			
-2	EP-9 (0.5-1.5)-030614		8:05													X	X	X	X	X																																																																																																			
-3	GL-1 (0.5-1.5)-030614		9:20													X	X	X	X	X																																																																																																			
-4	GL-2 (0.5-1.5)-030614		9:35													X	X	X	X	X																																																																																																			
-5	GL-3 (0.5-1.5)-030614		8:50													X	X	X	X	X																																																																																																			
-6	GL-3 (0.5-1.5)-030614D		8:50													X	X	X	X	X																																																																																																			
-7	KF-1 (0.5-1.5)-030614		9:05													X	X	X	X	X																																																																																																			
-8	KF-2 (0.5-1.5)-030614		9:20													X	X	X	X	X																																																																																																			
-9	NG-1 (0.5-1.5)-030614		9:30													X	X	X	X	X																																																																																																			
-10	RES-1 (0.5-1.5)-030614		9:45													X	X	X	X	X																																																																																																			
-11	RES-2 (0.5-1.5)-030614		10:05													X	X	X	X	X																																																																																																			
-12	RES-3 (0.5-1.5)-030614		10:15													X	X	X	X	X																																																																																																			
Turnaround Time ( Business days)				Approved By (Accutest PM): / Date:					Data Deliverable Information										Comments / Special Instructions																																																																																																				
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY									<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary										Coe ISA, 6F2																																																																																																				
Emergency & Rush T/A data available VIA Lablink				Sample Custody must be documented below each time samples change possession, including courier delivery.					CHICAGO SC																																																																																																														
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Custody Seal #	Intact	Not Intact	Preserved where applicable	On Ice	Cooler Temp.																																																																																																												
1 David Sena	3-7-14	S. Babusurkumar	FSD	3-7-14	S. Babusurkumar		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.5-7.1-0.8																																																																																																												
3		3	4		4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																													
5		5					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																													

5.1  
5

Table with 2 columns: FED-EX Tracking #, Accutest Quote #; Bottle Order Control #, Accutest Job # MC28736

Main Chain of Custody form containing Client/Reporting Information, Project Information, Requested Analysis (see TEST CODE sheet), Matrix Codes, and Data Deliverable Information sections.

5.1 5





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

14000 block of US 14 (between Washington Street and Sunset Ridge Road)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.331559843 Longitude: -88.477261255

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.331559843 Longitude: -88.477261255

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION VL11-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-49. SEE FIGURE 3-9 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28688

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-49**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL11-1(0.5-1.5)-030414	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	
Location ID	VL11-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.5	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	2.6	30
Ethylbenzene	1.1 J	13000
Methylene chloride	1.2 J	20
Toluene	4.5 J	12000
Xylene (Total)	2.7	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)anthracene	55.5 J	900 / 1100 / 1800
Benzo(a)pyrene	64.6 J	90 / 1300 / 2100
Benzo(b)fluoranthene	88.1 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	58.7 J	2300000
Benzo(k)fluoranthene	30.9 J	9000
bis(2-Ethylhexyl)phthalate	70.6 J	46000
Chrysene	56 J	88000
Fluoranthene	104	3100000
Indeno(1,2,3-cd)pyrene	49.6 J	900 / 900 / 1600
Phenanthrene	32.1 J	210000
Pyrene	85.9 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	8.2	11.3 / 13
Barium, Total	16.8	1500
Beryllium, Total	0.36	22
Cadmium, Total	0.11 J	5.2
Calcium, Total	95200	---
Chromium, Total	9.3	21
Cobalt, Total	4.5	20
Copper, Total	13.8	2900
Iron, Total	15700	15000 / 15900
Lead, Total	31.4	107
Magnesium, Total	51400	325000
Manganese, Total	353	630 / 636
Mercury, Total	0.009 J	0.89
Nickel, Total	10.1	100
Potassium, Total	633	---
Sodium, Total	1810	---
Vanadium, Total	20.1	550
Zinc, Total	98.7 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.19 J	2
Cadmium, TCLP	0.002 J	0.005
Chromium, TCLP	0.0016 J	0.1
Copper, TCLP	0.011 J	0.65
Lead, TCLP	0.0076 J	0.0075
Manganese, TCLP	1.2	0.15
Nickel, TCLP	0.014 J	0.1
Selenium, TCLP	0.0094 J	0.05
Silver, TCLP	0.0013 J	0.05
Zinc, TCLP	0.21	5

**Summary Table of ISGS Site No. 2792-49**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL11-1(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	
Location ID	VL11-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.013	0.05
Barium, SPLP	0.095 J	2
Beryllium, SPLP	0.0008 J	0.004
Cadmium, SPLP	0.0005 J	0.005
Chromium, SPLP	0.025	0.1
Cobalt, SPLP	0.0084 J	1
Copper, SPLP	0.05	0.65
Iron, SPLP	28	5
Lead, SPLP	0.042	0.0075
Manganese, SPLP	0.39 J	0.15
Nickel, SPLP	0.023 J	0.1
Zinc, SPLP	0.22	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28688

Sampling Date: 03/04/14

Report to:

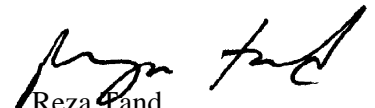
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **266**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> VL11-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-8	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 94.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63763.D	1	03/12/14	KD	n/a	n/a	MSM2235

Run #1	Initial Weight	Final Volume
Run #2	4.90 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.0	ug/kg	
71-43-2	Benzene	2.6	0.54	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.65	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.4	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.81	ug/kg	
67-66-3	Chloroform	ND	2.2	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.61	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.28	ug/kg	
100-41-4	Ethylbenzene	1.1	2.2	0.74	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.82	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.4	0.58	ug/kg	
75-09-2	Methylene chloride	1.2	2.2	0.57	ug/kg	J
100-42-5	Styrene	ND	5.4	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	4.5	5.4	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.23	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> VL11-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.62	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.98	ug/kg	
1330-20-7	Xylene (total)	2.7	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.07	14	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	8.3	ug/kg	JN
110-54-3	Hexane	8.46	7.4	ug/kg	JN
110-82-7	Cyclohexane	9.92	6.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.4	ug/kg	JN
	Total TIC, Volatile		44.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL11-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-8	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 94.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37379.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	66	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
106-44-5	4-Methylphenol	ND	520	27	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	55.5	100	14	ug/kg	J
50-32-8	Benzo(a)pyrene	64.6	100	11	ug/kg	J
205-99-2	Benzo(b)fluoranthene	88.1	100	13	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	58.7	100	10	ug/kg	J
207-08-9	Benzo(k)fluoranthene	30.9	100	16	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	56.0	100	13	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.22  
**4**



## Report of Analysis

<b>Client Sample ID:</b>	VL11-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-8	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	94.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	70.6	260	9.7	ug/kg	J
206-44-0	Fluoranthene	104	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	49.6	100	12	ug/kg	J
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	13	ug/kg	
99-09-2	3-Nitroaniline	ND	520	29	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	32.1	100	14	ug/kg	J
129-00-0	Pyrene	85.9	100	12	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	79%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL11-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 94.8
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	84%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	4800	ug/kg	JN
	Total TIC, Semi-Volatile		4800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.22  
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# Report of Analysis

<b>Client Sample ID:</b> VL11-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.86	0.13	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	8.2	0.86	0.18	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	16.8	4.3	0.062	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.36	0.34	0.020	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.11 B	0.34	0.036	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	95200	4300	54	mg/kg	10	03/10/14	03/12/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.3	0.86	0.081	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5	4.3	0.040	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.8	2.1	0.48	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	15700	8.6	0.75	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	31.4	0.86	0.14	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	51400	430	4.4	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	353	1.3	0.034	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0090 B	0.033	0.0074	mg/kg	1	03/13/14	03/14/14 SA	SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.1	3.4	0.038	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	633	430	7.3	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.86	0.30	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1810	430	2.8	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.11 U	0.86	0.11	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	20.1	0.86	0.11	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	98.7	1.7	0.14	mg/kg	1	03/10/14	03/10/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL11-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	94.8		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.5		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

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## Report of Analysis

<b>Client Sample ID:</b> VL11-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-8A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.19 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0020 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0016 B	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0076 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.2			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0094 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0013 B	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.21			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL11-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-8B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 94.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.013		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.095 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00080 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.025		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0084 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.050		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	28.0		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.042		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.39		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.023 B		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.22		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)												Matrix Codes									
Company Name <i>Wexton Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment CL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
Street Address <i>750 E. Banker Ct St. 500</i>		Street:																							
City State Zip <i>Newark IL 60061</i>		City:																							
Project Contact <i>S. Babuskar</i>		Project#																							
Phone # Fax # <i>847-918-7018 -4055</i>		Client POB																							
Sampler(s) Name(s) Phone # <i>T. Walk 847-918-4130</i>		Project Manager																							
Account # <i>A128688</i>		Collection																							
Field ID / Point of Collection		MECHID / Lab #		Date		Time		Sampled by		Matrix		# of bottles		Number of preserved bottles										LAB USE ONLY	
														<input type="checkbox"/> HCL <input type="checkbox"/> NH3 <input type="checkbox"/> NH4 <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> HNO2 <input type="checkbox"/> H2O2 <input type="checkbox"/> DI Water <input type="checkbox"/> MESH <input type="checkbox"/> ENCORE <input type="checkbox"/> Residue											
<i>1 REB-1(0.5-1.5)-030414</i>				<i>3-4-14</i>		<i>1115</i>		<i>TW 50</i>		<i>3</i>		<i>3</i>		<i>VOCs</i> <i>SJOCs</i> <i>Total Metals</i> <i>TCLP/SRLP metals</i> <i>PH</i>											
<i>2 AL4-1(0.5-1.5)-030414</i>						<i>1205</i>																			
<i>3 VL9-1(0.5-1.5)-030414</i>						<i>1215</i>																			
<i>4 VL9-2(0.5-1.5)-030414</i>						<i>1225</i>																			
<i>5 AL4-2(0.5-1.5)-030414</i>						<i>1240</i>																			
<i>6 AL4-3(0.5-1.5)-030414</i>						<i>1250</i>																			
<i>7 RES4-1(0.5-1.5)-030414</i>						<i>1300</i>																			
<i>8 VL11-1(0.5-1.5)-030414</i>						<i>1310</i>																			
<i>9 PV-1(0.5-1.5)-030414</i>						<i>1325</i>																			
<i>10 PV-2(0.5-1.5)-030414</i>						<i>1335</i>																			
<i>11 PV-3(0.5-1.5)-030414</i>						<i>1350</i>																			
<i>12 PV-3(0.5-1.5)-030414</i>				<i>3-4-14</i>		<i>1350</i>		<i>TW 50</i>		<i>3</i>		<i>3</i>		<input checked="" type="checkbox"/> VOCs <input checked="" type="checkbox"/> SJOCs <input checked="" type="checkbox"/> Total Metals <input checked="" type="checkbox"/> TCLP/SRLP metals <input checked="" type="checkbox"/> PH											
Data Deliverable Information												Comments / Special Instructions													
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink				Approved By (Accutest PM): / Date: _____				<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + OC Summary				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____				<i>Loc 143, GFI</i>									
Sample Custody must be documented below each time samples change possession, including courier delivery.																									
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:											
<i>1 T. Walk</i>		<i>3-4-14 / 15:40</i>		<i>[Signature]</i>		<i>3/4/14 15:40</i>		<i>[Signature]</i>		<i>3/5/14 9:30</i>		<i>2 Will Falk</i>		<i>4</i>											
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:											
<i>3</i>				<i>3</i>				<i>4</i>				<i>4</i>													
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		Preserved where applicable		On Ice		Cooler Temp.											
<i>5</i>										<input type="checkbox"/> Intact <input type="checkbox"/> Not intact		<input checked="" type="checkbox"/> On Ice <i>1.4°C</i>		<input type="checkbox"/> Cooler Temp. <i>1.4°C</i>											

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MC28688: Chain of Custody

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<b>Client / Reporting Information</b> Company Name: <i>Western Solutions</i> Street Address: <i>750 E. Bunker Ct Ste 500</i> City: <i>Norwich Hills IL 60061</i> Project Contact: <i>S. Babansukumar</i> Phone #: <i>847-918-4018</i> Fax #: <i>-4055</i> Sampler(s) Name(s): <i>T. Wells</i> Phone #: <i>847-918-4130</i> <i>MC28688</i>		<b>Project Information</b> Project Name: <i>JDOT-048 McHenry County</i> Street: _____ Billing Information (If different from Report to) Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project Manager: <i>[Signature]</i> POB: _____ Attention: _____ PC# _____		<b>Requested Analysis (see TEST CODE sheet)</b> VOCs SUDCS Total Metals TELP/SPLP Metals PH				<b>Matrix Codes</b> DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Waste FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
Accutest Sample # <i>13</i> Field ID / Point of Collection: <i>PV-4(0.5-1.5)-030414</i>	MEQ(HDI) Vial # <i>13</i>	Date <i>3-4-14</i>	Time <i>1400</i>	Sampled by <i>TW</i>	Matrix <i>SO</i>	# of bottles <i>3</i>	HCF <input type="checkbox"/>	NHCH <input type="checkbox"/>	NINCS <input type="checkbox"/>	H2SO4 <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	DI Water <input type="checkbox"/>	MICH <input type="checkbox"/>	ENCORE <input type="checkbox"/>	Biocide <input type="checkbox"/>	LAB USE ONLY	
<i>14</i>			<i>1415</i>														
<i>15</i>			<i>1425</i>														
<i>16</i>			<i>1440</i>														
<i>17</i>		<i>3-4-14</i>	<i>1450</i>	<i>TW</i>	<i>SO</i>	<i>3</i>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Data Deliverable Information</b> Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULL T1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary																	
Sample Custody must be documented below each time samples change possession, including courier delivery. <span style="float: right;">CHICAGO DC</span>																	
Relinquished by Sampler: <i>1 T. Wells</i>	Date Time: <i>3-4-14/1540</i>	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time: <i>3/5/14 930</i>	Received By: <i>[Signature]</i>												
Relinquished by Sampler: <i>3</i>	Date Time: _____	Received By: <i>3</i>	Relinquished By: _____	Date Time: _____	Received By: <i>4</i>												
Relinquished by: <i>5</i>	Date Time: _____	Received By: <i>5</i>	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input type="checkbox"/>	<input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp.											

5.1  
**5**

MC28688: Chain of Custody

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

14206 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.327455116 Longitude: -88.474420683

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.327455116 Longitude: -88.474420683

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS PV-1, PV-2, PV-3, PV-4, PV-5 AND PV-6 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-50. SEE FIGURES 3-9 AND 3-10 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28688

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



P.E. L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-50**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	PV-1(0.5-1.5)-030414	PV-2(0.5-1.5)-030414	PV-3(0.5-1.5)-030414	PV-3(0.5-1.5)-030414D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/4/2014	
Location ID	PV-1	PV-2	PV-3	PV-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.8	8.4	8.8	8.8	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Acetone	ND	29.2 J	46 J	35.3 J	25000
Benzene	1.6	2.2	3.5	2.8	30
Carbon disulfide	ND	0.39 J	ND	0.4 J	9000
Ethylbenzene	1.2 J	2	2.5	1.9 J	13000
Methyl ethyl ketone	ND	4.1 J	7.7 J	3.9 J	17000
Methylene chloride	1.2 J	2.4	3.3	2.9	20
Toluene	3.4 J	5.5	7.3	5.6	12000
Xylene (Total)	2.2	4.9	5.5	4.4	5600
<b>SVOCs (ug/kg)</b>					
Benzo(a)anthracene	ND	19.9 J	ND	ND	900 / 1100 / 1800
Benzo(a)pyrene	ND	19.7 J	ND	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	30.3 J	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	22.1 J	ND	ND	2300000
bis(2-Ethylhexyl)phthalate	ND	39.9 J	ND	ND	46000
Chrysene	ND	17.7 J	ND	ND	88000
Fluoranthene	ND	31.9 J	ND	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	14.3 J	ND	ND	900 / 900 / 1600
Pyrene	ND	27.5 J	ND	ND	2300000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	5.9	3.1	3.7	4.7	11.3 / 13
Barium, Total	29.7	30.2	28.9 J	48.7 J	1500
Beryllium, Total	0.23 J	0.15 J	0.19 J	0.26 J	22
Cadmium, Total	ND	0.32 J	0.052 J	0.1 J	5.2
Calcium, Total	84700	106000	110000	80700	---
Chromium, Total	9.7	12.6	11.6	14.6	21
Cobalt, Total	5.4	4.2 J	4.1 J	5.7	20
Copper, Total	20.7	21.1	12.3	16.5	2900
Iron, Total	13400	11300	10400	12900	15000 / 15900
Lead, Total	8.8	49.7	33.3	44.7	107
Magnesium, Total	41900	55400	53300	41000	325000
Manganese, Total	397	275	352	334	630 / 636
Mercury, Total	0.013 J	0.01 J	0.014 J	0.018 J	0.89
Nickel, Total	13	10.1	11.1	14.8	100
Potassium, Total	843	522	646	813	---
Selenium, Total	ND	ND	ND	ND	1.3
Silver, Total	ND	ND	ND	ND	4.4
Sodium, Total	809	1740	1350	1610	---
Thallium, Total	ND	ND	ND	ND	2.6
Vanadium, Total	18.3	21.1	20	23.1	550
Zinc, Total	30.4 J	54.6 J	34.6 J	41.6 J	5100

**Summary Table of ISGS Site No. 2792-50**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	PV-1(0.5-1.5)-030414	PV-2(0.5-1.5)-030414	PV-3(0.5-1.5)-030414	PV-3(0.5-1.5)-030414D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/4/2014	
Location ID	PV-1	PV-2	PV-3	PV-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	ND	0.0031 J	0.0029 J	ND	0.05
Barium, TCLP	0.34 J	0.39 J	0.4 J	0.39 J	2
Beryllium, TCLP	ND	ND	ND	ND	0.004
Cadmium, TCLP	0.0008 J	0.0023 J	0.0013 J	0.0014 J	0.005
Chromium, TCLP	ND	ND	ND	ND	0.1
Cobalt, TCLP	0.0028 J	0.012 J	0.009 J	0.0084 J	1
Copper, TCLP	0.012 J	0.012 J	0.0092 J	0.0082 J	0.65
Iron, TCLP	ND	0.049 J	ND	ND	5
Lead, TCLP	ND	0.0049 J	0.0047 J	0.0051 J	0.0075
Manganese, TCLP	1.5	4.8	2.4	2.4	0.15
Nickel, TCLP	0.016 J	0.021 J	0.018 J	0.019 J	0.1
Selenium, TCLP	0.0092 J	0.0079 J	0.0086 J	0.0089 J	0.05
Silver, TCLP	0.0011 J	ND	ND	ND	0.05
Zinc, TCLP	0.011 J	0.034 J	0.02 J	0.019 J	5
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.052	0.04	0.036	0.035	0.05
Barium, SPLP	0.32 J	0.37 J	0.36 J	0.38 J	2
Beryllium, SPLP	0.0031 J	0.0028 J	0.0027 J	0.0029 J	0.004
Cadmium, SPLP	0.001 J	0.0014 J	0.0014 J	0.0015 J	0.005
Chromium, SPLP	0.094	0.085	0.087	0.096	0.1
Cobalt, SPLP	0.034 J	0.041 J	0.03 J	0.031 J	1
Copper, SPLP	0.23	0.17	0.13	0.13	0.65
Iron, SPLP	121	97.2	87	90.3	5
Lead, SPLP	0.054	0.12	0.22	0.2	0.0075
Manganese, SPLP	1.6 J	1.7 J	1.3 J	1.3 J	0.15
Mercury, SPLP	0.00016 J	0.00013 J	0.00011 J	0.00011 J	0.002
Nickel, SPLP	0.11	0.11	0.087	0.091	0.1
Selenium, SPLP	ND	ND	ND	ND	0.05
Zinc, SPLP	0.39	0.37	0.37	0.37	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

**Summary Table of ISGS Site No. 2792-50**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	PV-4(0.5-1.5)-030414	PV-5(0.5-1.5)-030414	PV-6(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	
Location ID	PV-4	PV-5	PV-6	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8	8.7	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Acetone	170 J	84.2 J	65 J	25000
Benzene	0.5 J	3.8	3.3	30
Carbon disulfide	ND	ND	ND	9000
Ethylbenzene	ND	2.7	2.4	13000
Methyl ethyl ketone	20.1	9 J	10.1 J	17000
Methylene chloride	4.7	3.5	3.4	20
Toluene	0.55 J	8.5	7.2	12000
Xylene (Total)	0.68 J	6.1	4.8	5600
<b>SVOCs (ug/kg)</b>				
Benzo(a)anthracene	ND	ND	ND	900 / 1100 / 1800
Benzo(a)pyrene	ND	ND	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	ND	ND	2300000
bis(2-Ethylhexyl)phthalate	ND	28.6 J	ND	46000
Chrysene	ND	ND	ND	88000
Fluoranthene	ND	ND	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	ND	ND	900 / 900 / 1600
Pyrene	ND	ND	ND	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	11.6	5.2	6.6	11.3 / 13
Barium, Total	150	43	56.7	1500
Beryllium, Total	0.96	0.25 J	0.37	22
Cadmium, Total	0.087 J	ND	0.065 J	5.2
Calcium, Total	2230	90900	80100	---
Chromium, Total	23.1	9.1	13.7	21
Cobalt, Total	13.4	5.4	7.1	20
Copper, Total	20.8	13.6	17.7	2900
Iron, Total	31800	11700	14500	15000 / 15900
Lead, Total	15.7	7.1	10.4	107
Magnesium, Total	3930	48900	41500	325000
Manganese, Total	563	511	420	630 / 636
Mercury, Total	0.073	0.015 J	0.018 J	0.89
Nickel, Total	22.4	12.3	17.1	100
Potassium, Total	1050	865	1030	---
Selenium, Total	0.72 J	ND	ND	1.3
Silver, Total	0.13 J	ND	ND	4.4
Sodium, Total	3880	1240	2280	---
Thallium, Total	0.34 J	ND	0.14 J	2.6
Vanadium, Total	40.6	16.7	23.3	550
Zinc, Total	53.8 J	26.6 J	38.6 J	5100

**Summary Table of ISGS Site No. 2792-50**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	PV-4(0.5-1.5)-030414	PV-5(0.5-1.5)-030414	PV-6(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	
Location ID	PV-4	PV-5	PV-6	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	0.0069 J	0.0048 J	0.003 J	0.05
Barium, TCLP	0.57	0.67	0.71	2
Beryllium, TCLP	0.0006 J	ND	ND	0.004
Cadmium, TCLP	0.0007 J	0.001 J	0.0015 J	0.005
Chromium, TCLP	0.0016 J	ND	ND	0.1
Cobalt, TCLP	0.029 J	0.013 J	0.017 J	1
Copper, TCLP	0.02 J	0.0087 J	0.0073 J	0.65
Iron, TCLP	1.9	0.19	ND	5
Lead, TCLP	0.0031 J	0.0018 J	ND	0.0075
Manganese, TCLP	5.1	7.1	4.6	0.15
Nickel, TCLP	0.013 J	0.015 J	0.028 J	0.1
Selenium, TCLP	0.0076 J	0.0076 J	0.0095 J	0.05
Silver, TCLP	ND	ND	ND	0.05
Zinc, TCLP	0.015 J	0.055 J	0.0057 J	5
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.084	0.093	0.1	0.05
Barium, SPLP	2.2	1	0.81	2
Beryllium, SPLP	0.012	0.0078	0.0058	0.004
Cadmium, SPLP	0.0024 J	0.0019 J	0.0023 J	0.005
Chromium, SPLP	0.34	0.22	0.18	0.1
Cobalt, SPLP	0.12	0.08	0.051	1
Copper, SPLP	0.27	0.3	0.25	0.65
Iron, SPLP	363	270	200	5
Lead, SPLP	0.12	0.13	0.13	0.0075
Manganese, SPLP	5.9 J	3.4 J	2.7 J	0.15
Mercury, SPLP	0.0012	0.00063	0.00024	0.002
Nickel, SPLP	0.27	0.22	0.17	0.1
Selenium, SPLP	0.0054 J	0.0072 J	0.0084 J	0.05
Zinc, SPLP	0.79	0.58	0.62	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28688

Sampling Date: 03/04/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **266**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-9	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63764.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.21 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	1.6	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.62	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.78	ug/kg	
67-66-3	Chloroform	ND	2.1	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	1.2	2.1	0.71	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.78	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	1.2	2.1	0.55	ug/kg	J
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.32	ug/kg	
108-88-3	Toluene	3.4	5.2	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.22	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.25  
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## Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.59	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.94	ug/kg	
1330-20-7	Xylene (total)	2.2	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	12	ug/kg	JN
109-66-0	Pentane	6.49	9.2	ug/kg	JN
110-54-3	Hexane	8.46	6	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	9.92	6.1	ug/kg	JN
	Unknown	10.51	5.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8	ug/kg	JN
	Total TIC, Volatile		46.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-9	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37380.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
106-44-5	4-Methylphenol	ND	520	27	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
**4**

# Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-9	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	9.7	ug/kg	
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	13	ug/kg	
99-09-2	3-Nitroaniline	ND	520	29	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 92.8
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5100	ug/kg	JN
	Total TIC, Semi-Volatile		5100	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4

# Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.85	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.9	0.85	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	29.7	4.2	0.062	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.23 B	0.34	0.020	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.036 U	0.34	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	84700	4200	53	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.7	0.85	0.081	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.4	4.2	0.040	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	20.7	2.1	0.47	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13400	8.5	0.74	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.8	0.85	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	41900	420	4.3	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	397	1.3	0.034	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.013 B	0.035	0.0076	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	13.0	3.4	0.037	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	843	420	7.3	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.29 U	0.85	0.29	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.42	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	809	420	2.8	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.11 U	0.85	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.3	0.85	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	30.4	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.25  
 4

## Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.8		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.8		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-9A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 92.8
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.34 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0028 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.012 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.5			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0092 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0011 B	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.011 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

4.26  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-9B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.052		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.32 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0031 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.094		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.034 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.23		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	121		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.054		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.6		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00016 B		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.39		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.27  
4



## Report of Analysis

<b>Client Sample ID:</b> PV-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-10	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 93.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28683.D	1	03/14/14	AMY	n/a	n/a	MSV1075

Run #1	Initial Weight	Final Volume
Run #2	5.68 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	29.2	9.5	2.6	ug/kg	
71-43-2	Benzene	2.2	0.47	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.57	ug/kg	
78-93-3	2-Butanone (MEK)	4.1	9.5	2.9	ug/kg	J
75-15-0	Carbon disulfide	0.39	4.7	0.12	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.7	0.71	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.7	0.53	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.30	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.39	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.39	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.39	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	2.0	1.9	0.65	ug/kg	
591-78-6	2-Hexanone	ND	9.5	0.72	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.7	0.51	ug/kg	
75-09-2	Methylene chloride	2.4	1.9	0.50	ug/kg	
100-42-5	Styrene	ND	4.7	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.37	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	5.5	4.7	0.19	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-2(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-10		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 93.2
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.54	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.86	ug/kg	
1330-20-7	Xylene (total)	4.9	1.9	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	23	ug/kg	JN
109-66-0	Pentane	2.43	17	ug/kg	JN
110-54-3	Hexane	4.27	9.3	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.33	5.1	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.83	2.7	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.37	2.2	ug/kg	JN
142-82-5	Heptane	7.56	5.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.33	11	ug/kg	JN
98-82-8	Benzene, (1-methylethyl)-	12.54	2.5	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.63	1.8	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.96	4.2	ug/kg	JN
104-76-7	1-Hexanol, 2-ethyl-	13.45	1.7	ug/kg	JN
	Total TIC, Volatile		85.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	PV-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-10	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37381.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	86	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	66	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	99	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	19.9	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	19.7	110	11	ug/kg	J
205-99-2	Benzo(b)fluoranthene	30.3	110	13	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	22.1	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	12	ug/kg	
218-01-9	Chrysene	17.7	110	13	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	PV-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-10	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	39.9	260	9.8	ug/kg	J
206-44-0	Fluoranthene	31.9	110	14	ug/kg	J
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	14.3	110	12	ug/kg	J
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	13	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	27.5	110	12	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	260	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	80%		30-130%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.2
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.68	4700	ug/kg JN
	Total TIC, Semi-Volatile		4700	ug/kg J

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ND = Not detected	MDL - Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PV-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.1	0.87	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	30.2	4.3	0.063	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.15 B	0.35	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.32 B	0.35	0.037	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	106000	4300	54	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	12.6	0.87	0.082	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.2 B	4.3	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	21.1	2.2	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11300	8.7	0.75	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	49.7	0.87	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	55400	430	4.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	275	1.3	0.035	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.010 B	0.035	0.0076	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.1	3.5	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	522	430	7.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1740	430	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.87	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	21.1	0.87	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	54.6	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> PV-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	93.2		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.4		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> PV-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-10A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0031 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.39 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0023 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.012 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.012 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.049 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0049 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.8			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.021 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0079 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.034 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> PV-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-10B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.040		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.37 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0028 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.085		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.041 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	97.2		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00013 B		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

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# Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-11	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28684.D	1	03/14/14	AMY	n/a	n/a	MSV1075
Run #2 <sup>a</sup>	V28711.D	1	03/17/14	AMY	n/a	n/a	MSV1076

Run #	Initial Weight	Final Volume
Run #1	4.54 g	5.0 ml
Run #2	4.60 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	46.0	12	3.4	ug/kg	
71-43-2	Benzene	3.5	0.61	0.41	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.43	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.73	ug/kg	
78-93-3	2-Butanone (MEK)	7.7	12	3.7	ug/kg	J
75-15-0	Carbon disulfide	ND	6.1	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.27	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.1	0.92	ug/kg	
67-66-3	Chloroform	ND	2.4	0.21	ug/kg	
74-87-3	Chloromethane	ND	6.1	0.69	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.39	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.50	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.55	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.51	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.51	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.32	ug/kg	
100-41-4	Ethylbenzene	2.5	2.4	0.84	ug/kg	
591-78-6	2-Hexanone	ND	12	0.92	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.1	0.66	ug/kg	
75-09-2	Methylene chloride	3.3	2.4	0.65	ug/kg	
100-42-5	Styrene	ND	6.1	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.48	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.38	ug/kg	
108-88-3	Toluene	7.3	6.1	0.25	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-11		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.3
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.70	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	5.5	2.4	0.27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%	90%	70-130%
2037-26-5	Toluene-D8	74%	72%	70-130%
460-00-4	4-Bromofluorobenzene	126%	124%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	33	ug/kg	JN
109-66-0	Pentane	2.41	19	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.84	5.5	ug/kg	JN
110-54-3	Hexane	4.25	8.2	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.31	5.7	ug/kg	JN
142-82-5	Heptane	7.56	3.5	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.33	7.4	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.63	2.2	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.96	4.9	ug/kg	JN
104-76-7	1-Hexanol, 2-ethyl-	13.45	2.8	ug/kg	JN
	Total TIC, Volatile		92.2	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	PV-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-11	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37382.D	5	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	60	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	68	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	430	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5300	670	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	330	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	71	ug/kg	
100-02-7	4-Nitrophenol	ND	5300	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	67	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	66	ug/kg	
83-32-9	Acenaphthene	ND	530	71	ug/kg	
208-96-8	Acenaphthylene	ND	530	53	ug/kg	
120-12-7	Anthracene	ND	530	64	ug/kg	
56-55-3	Benzo(a)anthracene	ND	530	69	ug/kg	
50-32-8	Benzo(a)pyrene	ND	530	57	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	530	67	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	530	53	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	530	81	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	67	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	54	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	72	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	67	ug/kg	
86-74-8	Carbazole	ND	530	63	ug/kg	
218-01-9	Chrysene	ND	530	66	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	63	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	81	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	96	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	82	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	PV-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-11	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	76	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	67	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	530	64	ug/kg	
132-64-9	Dibenzofuran	ND	530	74	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	67	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	77	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	49	ug/kg	
206-44-0	Fluoranthene	ND	530	73	ug/kg	
86-73-7	Fluorene	ND	530	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	84	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	77	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	670	ug/kg	
67-72-1	Hexachloroethane	ND	1300	64	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	530	59	ug/kg	
78-59-1	Isophorone	ND	1300	61	ug/kg	
91-57-6	2-Methylnaphthalene	ND	530	68	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	67	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	67	ug/kg	
91-20-3	Naphthalene	ND	530	86	ug/kg	
98-95-3	Nitrobenzene	ND	1300	72	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	76	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	81	ug/kg	
85-01-8	Phenanthrene	ND	530	72	ug/kg	
129-00-0	Pyrene	ND	530	63	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	74	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	59%		30-130%
4165-62-2	Phenol-d5	57%		30-130%
118-79-6	2,4,6-Tribromophenol	54%		30-130%
4165-60-0	Nitrobenzene-d5	58%		30-130%
321-60-8	2-Fluorobiphenyl	60%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-11 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.3
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	63%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	4000	ug/kg	JN
	Total TIC, Semi-Volatile		4000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-11	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.86	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.7	0.86	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	28.9	4.3	0.062	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.34	0.020	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.052 B	0.34	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	110000	4300	54	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.6	0.86	0.082	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.1 B	4.3	0.040	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	12.3	2.1	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10400	8.6	0.75	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	33.3	0.86	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	53300	430	4.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	352	1.3	0.034	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.014 B	0.034	0.0075	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	11.1	3.4	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	646	430	7.3	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.86	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1350	430	2.8	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.11 U	0.86	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	20.0	0.86	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	34.6	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-11	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.3		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.8		su	1	03/07/14	MA	SW846 9045D

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RL = Reporting Limit



# Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-11A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.40 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0090 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0092 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0047 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.4			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0086 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.020 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-11B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.3
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.036		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.36 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0027 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.087		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.030 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	87.0		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.22		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.3		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00011 B		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.087		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.33  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414D	
<b>Lab Sample ID:</b> MC28688-12	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 92.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28685.D	1	03/14/14	AMY	n/a	n/a	MSV1075
Run #2 <sup>a</sup>	V28712.D	1	03/17/14	AMY	n/a	n/a	MSV1076

Run #	Initial Weight	Final Volume
Run #1	4.93 g	5.0 ml
Run #2	4.64 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	35.3	11	3.1	ug/kg	
71-43-2	Benzene	2.8	0.55	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.66	ug/kg	
78-93-3	2-Butanone (MEK)	3.9	11	3.4	ug/kg	J
75-15-0	Carbon disulfide	0.40	5.5	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.83	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	1.9	2.2	0.76	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.83	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.59	ug/kg	
75-09-2	Methylene chloride	2.9	2.2	0.58	ug/kg	
100-42-5	Styrene	ND	5.5	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	5.6	5.5	0.23	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414D		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-12		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 92.6
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.63	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	4.4	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%	88%	70-130%
2037-26-5	Toluene-D8	76%	74%	70-130%
460-00-4	4-Bromofluorobenzene	113%	119%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	30	ug/kg	JN
109-66-0	Pentane	2.43	18	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.85	4.9	ug/kg	JN
110-54-3	Hexane	4.25	7.6	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.32	4.9	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.36	1.4	ug/kg	JN
142-82-5	Heptane	7.56	3.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.33	7.2	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.54	1.9	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.96	3.4	ug/kg	JN
104-76-7	1-Hexanol, 2-ethyl-	13.45	1.6	ug/kg	JN
	Total TIC, Volatile		84.3	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414D	
<b>Lab Sample ID:</b> MC28688-12	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 92.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37383.D	5	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	60	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	67	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	430	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5300	660	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	330	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	71	ug/kg	
100-02-7	4-Nitrophenol	ND	5300	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	66	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	66	ug/kg	
83-32-9	Acenaphthene	ND	530	71	ug/kg	
208-96-8	Acenaphthylene	ND	530	53	ug/kg	
120-12-7	Anthracene	ND	530	64	ug/kg	
56-55-3	Benzo(a)anthracene	ND	530	69	ug/kg	
50-32-8	Benzo(a)pyrene	ND	530	57	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	530	66	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	530	53	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	530	80	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	67	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	54	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	72	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	66	ug/kg	
86-74-8	Carbazole	ND	530	63	ug/kg	
218-01-9	Chrysene	ND	530	66	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	62	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	81	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	95	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	81	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	PV-3(0.5-1.5)-030414D	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-12	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	76	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	66	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	530	63	ug/kg	
132-64-9	Dibenzofuran	ND	530	73	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	66	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	77	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	49	ug/kg	
206-44-0	Fluoranthene	ND	530	73	ug/kg	
86-73-7	Fluorene	ND	530	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	83	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	77	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	660	ug/kg	
67-72-1	Hexachloroethane	ND	1300	64	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	530	59	ug/kg	
78-59-1	Isophorone	ND	1300	61	ug/kg	
91-57-6	2-Methylnaphthalene	ND	530	67	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	66	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	66	ug/kg	
91-20-3	Naphthalene	ND	530	85	ug/kg	
98-95-3	Nitrobenzene	ND	1300	72	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	76	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	80	ug/kg	
85-01-8	Phenanthrene	ND	530	72	ug/kg	
129-00-0	Pyrene	ND	530	62	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	73	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	63%		30-130%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	67%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414D <b>Lab Sample ID:</b> MC28688-12 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 92.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	73%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	4400	ug/kg	JN
	Total TIC, Semi-Volatile		4400	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.86	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.7	0.86	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	48.7	4.3	0.062	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.26 B	0.34	0.020	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.10 B	0.34	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	80700	4300	54	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	14.6	0.86	0.081	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.7	4.3	0.040	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	16.5	2.1	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12900	8.6	0.75	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	44.7	0.86	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	41000	430	4.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	334	1.3	0.034	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.018 B	0.032	0.0070	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	14.8	3.4	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	813	430	7.3	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.86	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1610	430	2.8	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.11 U	0.86	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	23.1	0.86	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	41.6	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414D <b>Lab Sample ID:</b> MC28688-12 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 92.6
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.6		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.8		su	1	03/07/14	MA	SW846 9045D

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RL = Reporting Limit

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414D <b>Lab Sample ID:</b> MC28688-12A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 92.6
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.39 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0014 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0084 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0082 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0051 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.4			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.019 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0089 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.019 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.35  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-3(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-12B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.035		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.38 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0029 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0015 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.096		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.031 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	90.3		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.20		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.3		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00011 B		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.091		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.36  
4

# Report of Analysis

<b>Client Sample ID:</b> PV-4(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-13	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 82.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28686.D	1	03/14/14	AMY	n/a	n/a	MSV1075

Run #1	Initial Weight	Final Volume
Run #2	4.20 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	170	15	4.1	ug/kg	
71-43-2	Benzene	0.50	0.73	0.49	ug/kg	J
75-27-4	Bromodichloromethane	ND	2.9	0.30	ug/kg	
75-25-2	Bromoform	ND	2.9	0.51	ug/kg	
74-83-9	Bromomethane	ND	2.9	0.87	ug/kg	
78-93-3	2-Butanone (MEK)	20.1	15	4.5	ug/kg	
75-15-0	Carbon disulfide	ND	7.3	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.9	0.32	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	0.23	ug/kg	
75-00-3	Chloroethane	ND	7.3	1.1	ug/kg	
67-66-3	Chloroform	ND	2.9	0.25	ug/kg	
74-87-3	Chloromethane	ND	7.3	0.82	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	0.47	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.9	0.39	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.9	0.47	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.9	0.60	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.9	0.66	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.9	0.61	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.9	0.61	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	0.61	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	0.33	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	0.38	ug/kg	
100-41-4	Ethylbenzene	ND	2.9	1.0	ug/kg	
591-78-6	2-Hexanone	ND	15	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.9	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.3	0.78	ug/kg	
75-09-2	Methylene chloride	4.7	2.9	0.77	ug/kg	
100-42-5	Styrene	ND	7.3	0.25	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	0.57	ug/kg	
127-18-4	Tetrachloroethene	ND	2.9	0.45	ug/kg	
108-88-3	Toluene	0.55	7.3	0.30	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.9	0.32	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.37  
**4**

## Report of Analysis

<b>Client Sample ID:</b> PV-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.9	0.83	ug/kg	
79-01-6	Trichloroethene	ND	2.9	0.36	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	1.3	ug/kg	
1330-20-7	Xylene (total)	0.68	2.9	0.32	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	84%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b>	PV-4(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-13	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37384.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	300	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	96	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	74	ug/kg	
95-48-7	2-Methylphenol	ND	590	24	ug/kg	
106-44-5	4-Methylphenol	ND	590	30	ug/kg	
88-75-5	2-Nitrophenol	ND	590	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	590	42	ug/kg	
108-95-2	Phenol	ND	300	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	15	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	300	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	300	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	300	16	ug/kg	
106-47-8	4-Chloroaniline	ND	590	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	300	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	300	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	300	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	300	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PV-4(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-13	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 82.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	300	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	300	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	300	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	40	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	300	30	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	300	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	300	9.2	ug/kg	
84-66-2	Diethyl phthalate	ND	300	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	300	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	300	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	300	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	300	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	150	ug/kg	
67-72-1	Hexachloroethane	ND	300	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	300	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	590	15	ug/kg	
99-09-2	3-Nitroaniline	ND	590	32	ug/kg	
100-01-6	4-Nitroaniline	ND	590	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	300	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	300	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	300	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	300	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-4(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-13 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 82.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	87%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	6200	ug/kg	JN
	Total TIC, Semi-Volatile		6200	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.37  
4



# Report of Analysis

<b>Client Sample ID:</b> PV-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.15 U	0.97	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	11.6	0.97	0.20	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	150	4.8	0.070	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.96	0.39	0.023	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.087 B	0.39	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	2230	480	6.1	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	23.1	0.97	0.092	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	13.4	4.8	0.045	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	20.8	2.4	0.54	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	31800	97	8.4	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	15.7	0.97	0.16	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	3930	480	4.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	563	1.5	0.039	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.073	0.036	0.0080	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	22.4	3.9	0.042	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	1050	480	8.3	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.72 B	0.97	0.34	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.13 B	0.48	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	3880	480	3.2	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.34 B	0.97	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	40.6	0.97	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	53.8	1.9	0.16	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> PV-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	82.1		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.0		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-4(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-13A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 82.1
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0069 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.57	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00060 B			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00070 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0016 B	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.029 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.020 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	1.9			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0031 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0076 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.015 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> PV-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-13B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 82.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.084		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	2.2		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.012		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0024 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.34		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.12		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.27		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	363		0.20	0.040	mg/l	2	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	5.9		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.0012		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.27		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0054 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver <sup>a</sup>	0.0020 U		0.010	0.0020	mg/l	2	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.79		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

# Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-14	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28687.D	1	03/14/14	AMY	n/a	n/a	MSV1075

Run #1	Initial Weight	Final Volume
Run #2	4.17 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	84.2	13	3.8	ug/kg	
71-43-2	Benzene	3.8	0.67	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.48	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.81	ug/kg	
78-93-3	2-Butanone (MEK)	9.0	13	4.1	ug/kg	J
75-15-0	Carbon disulfide	ND	6.7	0.18	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.7	0.29	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.7	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.7	0.76	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.55	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.56	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.56	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.56	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.30	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.35	ug/kg	
100-41-4	Ethylbenzene	2.7	2.7	0.92	ug/kg	
591-78-6	2-Hexanone	ND	13	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.7	0.72	ug/kg	
75-09-2	Methylene chloride	3.5	2.7	0.71	ug/kg	
100-42-5	Styrene	ND	6.7	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.53	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	8.5	6.7	0.28	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
**4**

# Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-14	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.77	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	6.1	2.7	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	82%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.20	38	ug/kg	JN
109-66-0	Pentane	2.44	24	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.85	7.7	ug/kg	JN
110-54-3	Hexane	4.26	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.33	7	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.83	4.7	ug/kg	JN
822-50-4	Cyclopentane, 1,2-dimethyl-, trans-	7.37	3.1	ug/kg	JN
142-82-5	Heptane	7.56	8.9	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.34	17	ug/kg	JN
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	9.95	2.9	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.56	2.9	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.96	4.6	ug/kg	JN
	Total TIC, Volatile		134.8	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
**4**

## Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-14	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37398.D	1	03/11/14	KR	03/05/14	OP37068	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-14	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	28.6	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
4



## Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5600	ug/kg	JN
	Total TIC, Semi-Volatile		5600	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-14		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 89.4
<b>Project:</b> IDOT 048 - McHenry County, IL		

**Metals Analysis**

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.89	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.2	0.89	0.19	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	43.0	4.5	0.065	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.25 B	0.36	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.36	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	90900	4500	56	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.1	0.89	0.085	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.4	4.5	0.042	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.6	2.2	0.50	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11700	8.9	0.78	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.1	0.89	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	48900	450	4.6	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	511	1.3	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.033	0.0073	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	12.3	3.6	0.039	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	865	450	7.7	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1240	450	3.0	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.89	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	16.7	0.89	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	26.6	1.8	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.40  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.4		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.7		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-14A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0048 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.67	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.013 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0087 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.19			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0018 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	7.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.015 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0076 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.055 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.41  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-5(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-14B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.4
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.093		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.0		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0078		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0019 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.22		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.080		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.30		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	270		0.50	0.10	mg/l	5	03/11/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Lead	0.13		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.4		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00063		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.22		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0072 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.58		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Instrument QC Batch: MA16875
- (4) Prep QC Batch: MP22639
- (5) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.42  
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## Report of Analysis

<b>Client Sample ID:</b> PV-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28688.D	1	03/14/14	AMY	n/a	n/a	MSV1075
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.90 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	65.0	12	3.2	ug/kg	
71-43-2	Benzene	3.3	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	10.1	12	3.6	ug/kg	J
75-15-0	Carbon disulfide	ND	5.8	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	2.4	2.3	0.80	ug/kg	
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.62	ug/kg	
75-09-2	Methylene chloride	3.4	2.3	0.61	ug/kg	
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	7.2	5.8	0.24	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.43  
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## Report of Analysis

<b>Client Sample ID:</b> PV-6(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-15		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.66	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	4.8	2.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	82%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	33	ug/kg	JN
109-66-0	Pentane	2.42	22	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.85	7.6	ug/kg	JN
110-54-3	Hexane	4.26	13	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.33	7.1	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.83	4.6	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.37	3.1	ug/kg	JN
142-82-5	Heptane	7.56	9.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.34	17	ug/kg	JN
1000118-88-4	cis-1-Methyl-2-ethylcyclopentane	9.80	8	ug/kg	JN
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	9.95	2.9	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.56	2.9	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.96	3.6	ug/kg	JN
	Total TIC, Volatile		134.1	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4

## Report of Analysis

<b>Client Sample ID:</b>	PV-6(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-15	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37399.D	1	03/11/14	KR	03/05/14	OP37068	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	PV-6(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-15	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> PV-6(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-15 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5800	ug/kg	JN
	Total TIC, Semi-Volatile		5800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4

# Report of Analysis

<b>Client Sample ID:</b> PV-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.6	0.92	0.19	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	56.7	4.6	0.067	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.37	0.37	0.022	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.065 B	0.37	0.039	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	80100	4600	58	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	13.7	0.92	0.088	mg/kg	1	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	7.1	4.6	0.043	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	17.7	2.3	0.51	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14500	9.2	0.80	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	10.4	0.92	0.16	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	41500	460	4.7	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	420	1.4	0.037	mg/kg	1	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.018 B	0.034	0.0076	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	17.1	3.7	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	1030	460	7.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.46	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2280	460	3.1	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.14 B	0.92	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	23.3	0.92	0.12	mg/kg	1	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	38.6	1.8	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.43  
4

## Report of Analysis

<b>Client Sample ID:</b> PV-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.1		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.4		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

4.43  
**4**

## Report of Analysis

<b>Client Sample ID:</b> PV-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-15A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0030 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.71	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.017 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0073 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.6			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.028 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0095 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0057 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> PV-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-15B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.10		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.81		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0058		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0023 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.18		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.051		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.25		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	200		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.13		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.7		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00024		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.17		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0084 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.62		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.45  
4

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)										Matrix Codes									
Company Name <i>Wexton Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment CL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
Street Address <i>750 E. Banker Ct St. 500</i>		Street:																					
City State Zip <i>Newark IL 60061</i>		City:																					
Project Contact <i>S. Babusankar</i>		Project#																					
Phone # Fax # <i>847-918-7018 -4055</i>		Client POB																					
Sampler(s) Name(s) Phone # <i>T. Walk 847-918-4130</i>		Project Manager																					
Account # <i>A128688</i>		Collection																					
Field ID / Point of Collection		MECHID / Val #		Date		Time		Sampled by		Matrix		# of bottles		Number of preserved bottles		LAB USE ONLY							
														VOCs SVOCs Total Metals TCU/SPR Metals PH									
1 REB-1(0.5-1.5)-030414				3-4-14		1115		TW 50		3		3		X X X X X									
2 AL4-1(0.5-1.5)-030414						1205																	
3 VL9-1(0.5-1.5)-030414						1215																	
4 VL9-2(0.5-1.5)-030414						1225																	
5 AL4-2(0.5-1.5)-030414						1240																	
6 AL4-3(0.5-1.5)-030414						1250																	
7 RES4-1(0.5-1.5)-030414						1300																	
8 VL11-1(0.5-1.5)-030414						1310																	
9 PV-1(0.5-1.5)-030414						1325																	
10 PV-2(0.5-1.5)-030414						1335																	
11 PV-3(0.5-1.5)-030414						1350																	
12 PV-3(0.5-1.5)-030414				3-4-14		1350		TW 50		3		3		X X X X X									
Turnaround Time ( Business days)		Approved By (Accutest PM): / Date:		Commercial "A" ( Level 1)		Commercial "B" ( Level 2)		FULLT1 ( Level 3+4)		CT RCP		MA MCP		NYASP Category A		NYASP Category B		State Forms		EDD Format		Other	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Emergency & Rush T/A data available VIA Lablink				Commercial "A" = Results Only		Commercial "B" = Results + OC Summary																	
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:							
1 <i>T. Walk</i>		3-4-14 / 15:40		<i>[Signature]</i>		3/4/14 15:40		2 <i>[Signature]</i>		3/5/14 9:20		2 <i>Will Jalk</i>											
3				3				4				4											
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not intact		Preserved where applicable		<input type="checkbox"/>		On Ice <input checked="" type="checkbox"/>		Cooler Temp. <i>1.4°C</i>					
5				5																			

5.1  
5

MC28688: Chain of Custody

Page 1 of 3

Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <u>MC28688</u>

Client / Reporting Information				Project Information								Requested Analysis ( see TEST CODE sheet)								Matrix Codes												
Company Name <u>Weston Solutions</u>				Project Name <u>JDOT-048 McHenry County</u>								<div style="display: flex; justify-content: space-around;"> <span>VOCs</span> <span>SUDCs</span> <span>Total Metals</span> <span>TELP/SPLP Metals</span> <span>pH</span> </div>								DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Waste FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank												
Street Address <u>750 E. Bunker Ct Ste 500</u>				Street:				Billing Information ( If different from Report to)																								
City State Zip <u>Norren Hills IL 60061</u>				City:				Company Name				LAB USE ONLY																				
Project Contact <u>S. Bandaruksunon</u>				Project#:				Street Address																								
Phone # <u>847-918-4018</u>				Client POB				City State Zip																								
Sampler(s) Name(s) <u>T. Wachs</u>				Project Manager <u>Scott #10</u>				Attention:																								
Accutest Sample # <u>MC28688</u>				Collection								Number of preserved Bottles																				
Field ID / Point of Collection				MEQ/HD/ Vial #		Date		Time		Sampled by		Matrix		# of bottles		HCF	NH <sub>3</sub>	NH <sub>4</sub>	NH <sub>3</sub> O	FE/CO <sub>2</sub>	NH <sub>4</sub> OH	DI Water	MEDH	ENCO <sub>2</sub> R	Bottle							
<u>13</u>	<u>PV-4(0.5-1.5)-030414</u>					<u>3-4-14</u>	<u>1400</u>		<u>TW SO</u>		<u>3</u>														X	X	X	X	X			
<u>14</u>	<u>PV-5(0.5-1.5)-030414</u>						<u>1415</u>																									
<u>15</u>	<u>PV-6(0.5-1.5)-030414</u>						<u>1425</u>																									
<u>16</u>	<u>RE9-1(0.5-1.5)-030414</u>						<u>1440</u>																									
<u>17</u>	<u>RE9-2(0.5-1.5)-030414</u>					<u>3-4-14</u>	<u>1450</u>		<u>TW SO</u>		<u>3</u>															X	X	X	X	X		

Data Deliverable Information	Comments / Special Instructions
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>	<div style="border: 1px solid black; padding: 2px;"> <input type="checkbox"/> Commercial "A" ( Level 1 )    <input type="checkbox"/> NYASP Category A  <input type="checkbox"/> Commercial "B" ( Level 2 )    <input type="checkbox"/> NYASP Category B  <input type="checkbox"/> FULL T1 ( Level 3+4 )        <input type="checkbox"/> State Forms  <input type="checkbox"/> CT RCP                              <input type="checkbox"/> EDD Format  <input type="checkbox"/> MA MCP                              <input type="checkbox"/> Other _____  <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small> </div>
Approved By (Accutest PM) / Date: _____	

Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler:	Date Time:	Received By:	Date Time:
1 <u>Wachs</u>	<u>3-4-14 1540</u>	1 <u>Scott #10</u>	<u>3/4/14 1540</u>
Relinquished by Sampler:	Date Time:	Received By:	Date Time:
3		3	
Relinquished by:	Date Time:	Received By:	Date Time:
5		5	
Custody Seal #		Preserved where applicable	
<input type="checkbox"/> Intact		<input type="checkbox"/> On Ice	
<input type="checkbox"/> Not Intact		<input type="checkbox"/> Cooler Temp.	

**MC28688: Chain of Custody**

**Page 2 of 3**





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
14006 to 14044 Sunset Ridge Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.325573311 Longitude: -88.473487747  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.325573311 Longitude: -88.473487747Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONSAL4-6, RES5-1, AND RES5-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-51. SEE FIGURES 3-9 AND 3-10 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28736

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

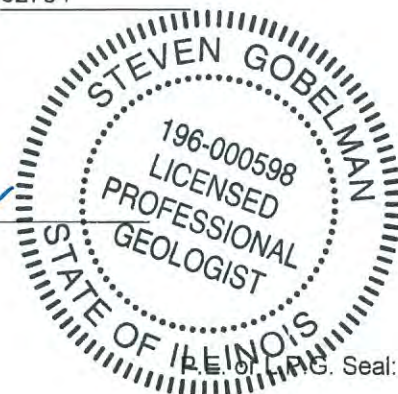
Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



Seal:

**Summary Table of ISGS Site No. 2792-51**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL4-6(0.5-1.5)-030614	RES5-1(0.5-1.5)-030614	RES5-2(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	AL4-6	RES5-1	RES5-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.5	8.4	8.6	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Benzene	2.3	1.2	2.2	30
Carbon disulfide	0.76 J	ND	ND	9000
Ethylbenzene	1.3 J	ND	1.2 J	13000
Methylene chloride	2 J	1.3 J	1.4 J	20
Toluene	4.5 J	2 J	3.9 J	12000
Xylene (Total)	2.9	1.3 J	2.5	5600
<b>SVOCs (ug/kg)</b>	None Detected			
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	5.7	6.2	6	11.3 / 13
Barium, Total	38.1	45.6	47.9	1500
Beryllium, Total	0.35 J	0.34 J	0.34 J	22
Calcium, Total	62400	77400	75400	---
Chromium, Total	10.7	11.1	10.3	21
Cobalt, Total	6	5.9	6	20
Copper, Total	15.3	14.5	15.4	2900
Iron, Total	14800	14800	15200	15000 / 15900
Lead, Total	7.8	8.1	10.1	107
Magnesium, Total	31000	37600	34400	325000
Manganese, Total	392	451	525	630 / 636
Mercury, Total	0.01 J	0.017 J	0.011 J	0.89
Nickel, Total	16.2	15.2	14.6	100
Potassium, Total	1050	1020	837	---
Silver, Total	0.12 J	0.23 J	0.14 J	4.4
Sodium, Total	1230	1600	1240	---
Thallium, Total	0.71 J	0.76 J	0.76 J	2.6
Vanadium, Total	23.8	24	23.5	550
Zinc, Total	31.6 J	37 J	31.6 J	5100
<b>TCLP Metals (mg/l)</b>				
Barium, TCLP	0.36 J	0.73	0.42 J	2
Cadmium, TCLP	0.0007 J	0.0022 J	0.0009 J	0.005
Cobalt, TCLP	0.0081 J	0.025 J	0.0069 J	1
Manganese, TCLP	2.4	6.3	2.4	0.15
Nickel, TCLP	0.017 J	0.028 J	0.016 J	0.1
Zinc, TCLP	0.0064 J	0.0091 J	0.0062 J	5
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.063	0.067	0.078	0.05
Barium, SPLP	0.46 J	0.66	0.64	2
Beryllium, SPLP	0.0042	0.0043	0.0056	0.004
Cadmium, SPLP	0.0005 J	0.0008 J	0.0008 J	0.005
Chromium, SPLP	0.11	0.13	0.15	0.1
Cobalt, SPLP	0.05	0.053	0.058	1
Copper, SPLP	0.21	0.2	0.24	0.65
Iron, SPLP	151	151	194	5
Lead, SPLP	0.072	0.081	0.093	0.0075
Manganese, SPLP	2.2	2.6	3.1	0.15
Mercury, SPLP	0.00028	0.00012 J	0.00038	0.002
Nickel, SPLP	0.16	0.17	0.2	0.1
Selenium, SPLP	0.0053 J	0.0048 J	0.0057 J	0.05
Zinc, SPLP	0.44 J	0.5 J	0.55 J	5

**Summary Table of ISGS Site No. 2792-51**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

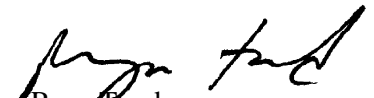
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> RES5-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-10	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63839.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	6.03 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.5	2.7	ug/kg	
71-43-2	Benzene	1.2	0.47	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.57	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.5	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	4.7	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.7	0.72	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.7	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.39	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.40	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.40	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	0.65	ug/kg	
591-78-6	2-Hexanone	ND	9.5	0.72	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.7	0.51	ug/kg	
75-09-2	Methylene chloride	1.3	1.9	0.50	ug/kg	J
100-42-5	Styrene	ND	4.7	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.37	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	2.0	4.7	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.28  
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## Report of Analysis

<b>Client Sample ID:</b>	RES5-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-10	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.54	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.86	ug/kg	
1330-20-7	Xylene (total)	1.3	1.9	0.21	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	41	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	19	ug/kg	JN
109-66-0	Pentane	6.48	20	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.83	11	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.3	ug/kg	JN
110-54-3	Hexane	8.46	9.9	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.5	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.4	ug/kg	JN
	Total TIC, Volatile		124.4	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RES5-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-10	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37426.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	RES5-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-10	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	84%		30-130%
4165-62-2	Phenol-d5	82%		30-130%
118-79-6	2,4,6-Tribromophenol	89%		30-130%
4165-60-0	Nitrobenzene-d5	82%		30-130%
321-60-8	2-Fluorobiphenyl	87%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RES5-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-10 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 87.3
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RES5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.94	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.2	0.94	0.20	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	45.6	4.7	0.068	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.34 B	0.38	0.022	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.040 U	0.38	0.040	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	77400	4700	59	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.1	0.94	0.089	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.9	4.7	0.044	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.5	2.3	0.52	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14800	9.4	0.82	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.1	0.94	0.16	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	37600	470	4.8	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	451	1.4	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.017 B	0.037	0.0081	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	15.2	3.8	0.041	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	1020	470	8.0	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.94	0.33	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.23 B	0.47	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1600	470	3.1	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.76 B	0.94	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	24.0	0.94	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	37.0	1.9	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RES5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.28  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.3		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.4		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> RES5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-10A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.73	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0022 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.025 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	6.3			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.028 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0091 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RES5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-10B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.067		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.66		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0043		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.053		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.20		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	151		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.081		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.6		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00012 B		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.17		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 B		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.50		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b>	RES5-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-11	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.3
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63842.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.10 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.0	ug/kg	
71-43-2	Benzene	2.2	0.53	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.3	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.80	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.44	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.44	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	1.2	2.1	0.73	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.80	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.3	0.57	ug/kg	
75-09-2	Methylene chloride	1.4	2.1	0.56	ug/kg	J
100-42-5	Styrene	ND	5.3	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	3.9	5.3	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RES5-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.97	ug/kg	
1330-20-7	Xylene (total)	2.5	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-28-5	Isobutane	4.77	72	ug/kg	JN
106-97-8	Butane	5.09	52	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	25	ug/kg	JN
109-66-0	Pentane	6.48	22	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	6.8	ug/kg	JN
110-54-3	Hexane	8.46	15	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.8	ug/kg	JN
110-82-7	Cyclohexane	9.92	8.3	ug/kg	JN
142-82-5	Heptane	10.51	7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
	Total TIC, Volatile		242.9	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.31  
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## Report of Analysis

<b>Client Sample ID:</b>	RES5-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-11	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37436.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	67	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	530	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RES5-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-11	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	9.9	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RES5-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	99%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.31  
4

# Report of Analysis

<b>Client Sample ID:</b> RES5-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.0	0.88	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	47.9	4.4	0.064	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.34 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	75400	4400	55	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.3	0.88	0.084	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.0	4.4	0.041	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.4	2.2	0.49	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	15200	8.8	0.77	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	10.1	0.88	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	34400	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	525	1.3	0.035	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.032	0.0070	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	14.6	3.5	0.039	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	837	440	7.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.14 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1240	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.76 B	0.88	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	23.5	0.88	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	31.6	1.8	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RES5-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-11 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.3
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.3		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.6		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.31  
4

# Report of Analysis

<b>Client Sample ID:</b> RES5-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-11A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.42 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0069 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.4			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0062 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.32  
4

## Report of Analysis

<b>Client Sample ID:</b> RES5-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-11B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.078		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.64		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0056		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.058		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.24		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	194		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.093		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.1		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00038		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.20		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0057 B		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.55		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.33  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63844.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	4.48 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.4	ug/kg	
71-43-2	Benzene	2.3	0.60	0.41	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.43	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.73	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.7	ug/kg	
75-15-0	Carbon disulfide	0.76	6.0	0.16	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.4	0.27	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.91	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.68	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.39	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.50	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.55	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.32	ug/kg	
100-41-4	Ethylbenzene	1.3	2.4	0.83	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.92	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.0	0.65	ug/kg	
75-09-2	Methylene chloride	2.0	2.4	0.64	ug/kg	J
100-42-5	Styrene	ND	6.0	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.48	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.38	ug/kg	
108-88-3	Toluene	4.5	6.0	0.25	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.69	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	2.9	2.4	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	57	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	28	ug/kg	JN
109-66-0	Pentane	6.48	25	ug/kg	JN
	Unknown	7.83	16	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7.1	ug/kg	JN
110-54-3	Hexane	8.46	15	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8.7	ug/kg	JN
110-82-7	Cyclohexane	9.92	8.8	ug/kg	JN
142-82-5	Heptane	10.51	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
	Total TIC, Volatile		185.2	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-13	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37438.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	86	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	66	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	99	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	12	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-13	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	9.7	ug/kg	
206-44-0	Fluoranthene	ND	110	14	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	13	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	86%		30-130%
4165-62-2	Phenol-d5	81%		30-130%
118-79-6	2,4,6-Tribromophenol	70%		30-130%
4165-60-0	Nitrobenzene-d5	85%		30-130%
321-60-8	2-Fluorobiphenyl	87%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6200	ug/kg	JN
	Total TIC, Semi-Volatile		6200	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.37  
4

# Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.7	0.89	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	38.1	4.4	0.064	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.35 B	0.36	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.36	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	62400	4400	56	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.7	0.89	0.084	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.0	4.4	0.042	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.3	2.2	0.49	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14800	8.9	0.77	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.8	0.89	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	31000	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	392	1.3	0.036	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.010 B	0.033	0.0073	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	16.2	3.6	0.039	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	1050	440	7.6	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1230	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.71 B	0.89	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	23.8	0.89	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	31.6	1.8	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-13 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.3
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.3		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.5		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-13A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.36 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00070 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0081 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.4			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0064 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL4-6(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-13B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 92.3
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.063		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.46 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.11		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.050		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.21		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	151		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.072		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.2		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00028		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.16		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0053 B		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.44		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.39  
4



FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
Accutest Quote # \_\_\_\_\_ Accutest Job # **MC 28736**

Client / Reporting Information		Project Information										Requested Analysis ( see TEST CODE sheet)					Matrix Codes																																																												
Company Name <b>Weston Solutions, Inc</b>		Project Name <b>DOT # 049 McHenry County</b>										<table border="1"> <tr><td>VOCs</td><td>SVOCs</td><td>Total Metals</td><td>TCLP/SLCP Metals</td><td>pH</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr> </table>					VOCs	SVOCs	Total Metals	TCLP/SLCP Metals	pH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment CI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
VOCs	SVOCs	Total Metals	TCLP/SLCP Metals	pH																																																																									
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Street Address <b>750 E Bunker Ct # 500</b>		Street:																																																																											
City State Zip <b>Vernon Hills IL 60061</b>		City: _____ Company Name _____																																																																											
Project Contact <b>S. Babusurkumar</b>		Street Address _____																																																																											
Phone # Fax # <b>947-919-4000</b>		City State Zip _____																																																																											
Sampler(s) Name(s) Phone # <b>David Sena 574-261-5413</b>		Attention: _____ PO# _____																																																																											
Accutest Sample #	Field ID / Point of Collection	MECH/DI/Vial #	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY																																																											
								NCI	NACN	PNCD	PZSC4	NONE	DY WWT	MEQH	ENCORE	Biosafe																																																													
-1	EP-8 (0.5-1.5)-030614		3-6-14	7:55	DS	So	3																																																																						
-2	EP-9 (0.5-1.5)-030614			8:05																																																																									
-3	GL-1 (0.5-1.5)-030614			9:20																																																																									
-4	GL-2 (0.5-1.5)-030614			9:35																																																																									
-5	GL-3 (0.5-1.5)-030614			8:50																																																																									
-6	GL-3 (0.5-1.5)-030614			8:50																																																																									
-7	KF-1 (0.5-1.5)-030614			9:05																																																																									
-8	KF-2 (0.5-1.5)-030614			9:20																																																																									
-9	NG-1 (0.5-1.5)-030614			9:30																																																																									
-10	RES-1 (0.5-1.5)-030614			9:45																																																																									
-11	RES-2 (0.5-1.5)-030614			10:05																																																																									
-12	RES-3 (0.5-1.5)-030614			10:15																																																																									

Data Deliverable Information		Comments / Special Instructions
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>		Approved By (Accutest PM): / Date: _____ _____ _____ _____ _____
<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>		
<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____		_____ _____ _____ _____ _____

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler		Date Time	Received By	Date Time	Relinquished By	Date Time	Received By
1 <b>David Sena</b>		3-7-14	<b>S. Babusurkumar</b>	3-7-14	2 <b>F2D</b>	3-7-14	2 <b>WCP</b>
3			3		4		4
Relinquished by:		Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:
5			5		Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact	On Ice <input type="checkbox"/> Cooler Temp. <input checked="" type="checkbox"/> 1.5-7.1-0.8

5.1  
5

FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
 Accutest Quote # \_\_\_\_\_ Accutest Job # MC28736

Client / Reporting Information				Project Information												Requested Analysis ( see TEST CODE sheet)													Matrix Codes
Company Name <u>Weston Solutions, Inc.</u>				Project Name <u>IDOT # 049 McHenry County</u>																									DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <u>750 E Bunker Ct # 500</u>				Street: City: _____ State: _____ Zip: _____				Billing Information ( If different from Report to) Company Name: _____																					
City: _____ State: _____ Zip: _____ <u>Vernon Hills IL 60061</u>				Project Contact Name: _____ E-mail: _____				Street Address City: _____ State: _____ Zip: _____																					
Project Contact Name: <u>S. Babusukumar</u> E-mail: _____				Project # _____				Street Address City: _____ State: _____ Zip: _____				<p style="text-align: center;"><i>Handwritten:</i>            VOCs SVOCs Total Metals TCUP/SPC Metals pH</p>																	
Phone # _____ Fax # _____ <u>847-918-4000</u>				Client PO# _____				City: _____ State: _____ Zip: _____																					
Sampler(s) Name(s) _____ Phone # _____ <u>David Jena 574-261-5413</u>				Project Manager _____				Attention: _____ PO# _____																					
Accutest Sample #	Field ID / Point of Collection	MECH/OI Viol #	Collection				Number of preserved bottles											LAB USE ONLY											
			Date	Time	Sampled by	Matrix	# of bottles	MCL	MSA	MSB	MSD	MSL	MSM	MSN	MSO	MSR	MSQ		MSR	MSU	MSV	MSW	MSX	MSY	MSZ				
<u>13</u>	<u>AL4-6(0.5-1.5)-030614</u>		<u>3-6-14</u>	<u>10:30</u>	<u>DS</u>	<u>SO</u>	<u>3</u>																						
<u>14</u>	<u>AL4-7(0.5-1.5)-030614</u>			<u>10:45</u>																									
<u>15</u>	<u>AL4-8(0.5-1.5)-030614</u>			<u>11:00</u>																									
<u>16</u>	<u>GM-1(0.5-1.5)-030614</u>			<u>11:15</u>																									
<u>17</u>	<u>GM-2(0.5-1.5)-030614</u>			<u>11:30</u>																									
<u>18</u>	<u>VLS-1(0.5-1.5)-030614</u>			<u>12:30</u>																									
<u>19</u>	<u>RES3-1(0.5-1.5)-030614</u>			<u>13:50</u>																									
<u>20</u>	<u>RES3-2(0.5-1.5)-030614</u>			<u>13:05</u>																									
<del> </del>				<del> </del>												<del> </del>													<del> </del>
Data Deliverable Information												Comments / Special Instructions																	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>												Approved By (Accutest PM) / Date: _____ <input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only            Commercial "B" = Results + QC Summary</small>																	
Sample Custody must be documented below each time samples change possession, including courier delivery.															<b>CHICAGO SC</b>														
Relinquished by Sampler: <u>David Jena</u>	Date Time: <u>3-6-14</u>	Received By: <u>[Signature]</u>			Date Time: <u>3-7-14</u>			Relinquished By: <u>FEDX</u>						Date Time: <u>3-7-14</u>						Received By: <u>[Signature]</u>									
Relinquished by Sampler: _____	Date Time: _____	Received By: _____			Date Time: _____			Relinquished By: _____						Date Time: _____						Received By: _____									
Relinquished by: _____	Date Time: _____	Received By: _____			Date Time: _____			Custody Seal # _____						<input type="checkbox"/> Intact <input type="checkbox"/> Preserved where applicable <input type="checkbox"/> On ice <input type="checkbox"/> Cooler Temp.						<input type="checkbox"/> Not intact <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									

5.1  
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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

1301 Sunset Ridge Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.322865163 Longitude: -88.472869592  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

EPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.322865163 Longitude: -88.472869592

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

LOCATION NG-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-52. SEE FIGURE 3-10 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28736

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

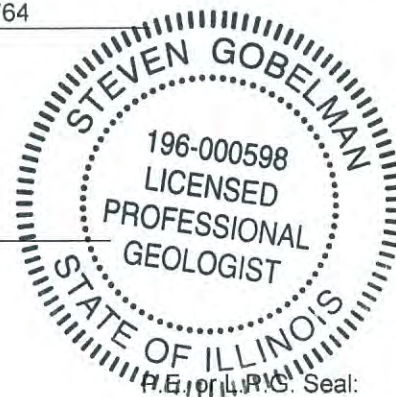
Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-52**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	NG-1(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	NG-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	9	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	2.3	30
Ethylbenzene	0.96 J	13000
Methylene chloride	1.7 J	20
Toluene	3.8 J	12000
Xylene (Total)	2.3 J	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)pyrene	14.8 J	90 / 1300 / 2100
Benzo(g,h,i)perylene	14.3 J	2300000
Pyrene	14.7 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	3.5	11.3 / 13
Barium, Total	20.8	1500
Beryllium, Total	0.16 J	22
Cadmium, Total	0.079 J	5.2
Calcium, Total	126000	---
Chromium, Total	8.6	21
Cobalt, Total	3.4 J	20
Copper, Total	10.5	2900
Iron, Total	9710	15000 / 15900
Lead, Total	57.7	107
Magnesium, Total	65900	325000
Manganese, Total	318	630 / 636
Mercury, Total	0.008 J	0.89
Nickel, Total	7.9	100
Potassium, Total	596	---
Silver, Total	0.29 J	4.4
Sodium, Total	1600	---
Thallium, Total	0.29 J	2.6
Vanadium, Total	16	550
Zinc, Total	34.9 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.25 J	2
Cadmium, TCLP	0.0019 J	0.005
Chromium, TCLP	0.007 J	0.1
Cobalt, TCLP	0.007 J	1
Lead, TCLP	0.0023 J	0.0075
Manganese, TCLP	1.4	0.15
Nickel, TCLP	0.018 J	0.1
Zinc, TCLP	0.023 J	5

**Summary Table of ISGS Site No. 2792-52**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	NG-1(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	NG-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.034	0.05
Barium, SPLP	0.2 J	2
Beryllium, SPLP	0.0016 J	0.004
Cadmium, SPLP	0.0006 J	0.005
Chromium, SPLP	0.061	0.1
Cobalt, SPLP	0.027 J	1
Copper, SPLP	0.1	0.65
Iron, SPLP	66.9	5
Lead, SPLP	0.27	0.0075
Manganese, SPLP	1.1	0.15
Nickel, SPLP	0.067	0.1
Zinc, SPLP	0.33 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> NG-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63838.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.60 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	2.3	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.72	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.90	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.50	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	0.96	2.4	0.82	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.90	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.64	ug/kg	
75-09-2	Methylene chloride	1.7	2.4	0.63	ug/kg	J
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	3.8	5.9	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> NG-1(0.5-1.5)-030614		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-9		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 91.3
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.68	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	2.3	2.4	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	49	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	26	ug/kg	JN
109-66-0	Pentane	6.48	25	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	6.9	ug/kg	JN
110-54-3	Hexane	8.46	12	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.6	ug/kg	JN
110-82-7	Cyclohexane	9.92	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.5	ug/kg	JN
	Total TIC, Volatile		158.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	NG-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-9	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37435.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	88	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	22	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	14.8	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	14.3	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	NG-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-9	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	14.7	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	86%		30-130%
4165-62-2	Phenol-d5	82%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	85%		30-130%
321-60-8	2-Fluorobiphenyl	89%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> NG-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.3
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	102%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6200	ug/kg JN
	Total TIC, Semi-Volatile		6200	ug/kg J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> NG-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.5	0.88	0.18	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	20.8	4.4	0.064	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.16 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.079 B	0.35	0.037	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	126000	4400	55	mg/kg	10	03/12/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.6	0.88	0.084	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt <sup>a</sup>	3.4 B	8.8	0.083	mg/kg	2	03/12/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	10.5	2.2	0.49	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	9710	8.8	0.77	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead <sup>a</sup>	57.7	1.8	0.30	mg/kg	2	03/12/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	65900	440	4.5	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	318	1.3	0.035	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0080 B	0.034	0.0075	mg/kg	1	03/18/14	03/18/14 SA	SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel <sup>a</sup>	7.9	7.1	0.078	mg/kg	2	03/12/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	596	440	7.6	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.29 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1600	440	2.9	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium <sup>a</sup>	0.29 B	1.8	0.23	mg/kg	2	03/12/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	16.0	0.88	0.12	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	34.9	1.8	0.14	mg/kg	1	03/12/14	03/12/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.25  
**4**

## Report of Analysis

<b>Client Sample ID:</b> NG-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.25  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.3		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	9.0		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> NG-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-9A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.25 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0019 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0070 B	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0070 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0023 B	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.023 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> NG-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-9B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.3
--	--

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.034		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.20 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0016 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.061		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.027 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.10		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	66.9		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.27		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.067		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.33		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC 28736</b>
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	
DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment CI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
LAB USE ONLY	

Client / Reporting Information			Project Information										Requested Analysis (see TEST CODE sheet)				Matrix Codes						
Company Name <b>Weston Solutions, Inc</b>			Project Name <b>DOT # 043 McHenry County</b>										<b>VOCs</b> <b>SIVOCs</b> <b>Total Metals</b> <b>TCLP/SRLP Metals</b> <b>pH</b>										
Street Address <b>750 E Bunker Ct # 500</b>			Billing Information (If different from Report to)																				
City, State, Zip <b>Vernon Hills IL 60061</b>			Company Name																				
Project Contact <b>S. Babusurkumar</b>			Street Address																				
Phone # <b>947-919-4000</b>			City, State, Zip																				
Sampler(s) Name(s) <b>David Sena</b>			Attention: PO#																				
Field ID / Point of Collection			Collection			Number of preserved Bottles																	
Accutest Sample #	MECH/DI/Vial #	Date	Time	Sampled by	Matrix	# of bottles	ACI	NACH	PHED	PSECH	DI WWRIT	MEOH						ENCORE	Biosafe				
-1	EP-8 (0.5-1.5)-030614	3-6-14	7:55	DS	So	3																	
-2	EP-9 (0.5-1.5)-030614		8:05																				
-3	GL-1 (0.5-1.5)-030614		9:20																				
-4	GL-2 (0.5-1.5)-030614		9:35																				
-5	GL-3 (0.5-1.5)-030614		8:50																				
-6	GL-3 (0.5-1.5)-030614D		8:50																				
-7	KF-1 (0.5-1.5)-030614		9:05																				
-8	KF-2 (0.5-1.5)-030614		9:20																				
-9	NG-1 (0.5-1.5)-030614		9:30																				
-10	RESS-1 (0.5-1.5)-030614		9:45																				
-11	RESS-2 (0.5-1.5)-030614		10:05																				
-12	RESS-3 (0.5-1.5)-030614		10:15																				

Data Deliverable Information			Comments / Special Instructions
<input checked="" type="checkbox"/> Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink	Approved By (Accutest PM): / Date: _____	<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____
			<b>See ISA, pF2</b>

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: <b>David Sena</b>	Date Time: <b>3-7-14</b>	Received By: <b>S. Babusurkumar</b>	Relinquished By: <b>F2D</b>	Date Time: <b>3-7-14</b>	Received By: <b>WCP M...</b>
Relinquished by Sampler: <b>3</b>	Date Time:	Received By: <b>3</b>	Relinquished By: <b>4</b>	Date Time:	Received By: <b>4</b>
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact	On Ice <input type="checkbox"/> Cooler Temp. <input checked="" type="checkbox"/> <b>1.5-7.1-0.8</b>

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28736</b>

Client / Reporting Information			Project Information							Requested Analysis ( see TEST CODE sheet)												Matrix Codes	
Company Name <b>Weston Solutions, Inc.</b>			Project Name <b>IDOT #049 McHenry County</b>							<div style="display: flex; flex-direction: column; align-items: center; justify-content: center;"> <span style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</span> <span style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOCs</span> <span style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</span> <span style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP/SLP Metals</span> <span style="writing-mode: vertical-rl; transform: rotate(180deg);">pH</span> </div>												DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIO - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address <b>750 E Bunker Ct # 500</b>			Billing Information ( If different from Report to)																				
City State Zip <b>Vernon Hills IL 60061</b>			Company Name																				
Project Contact <b>S. Babusukumar</b>			Street Address																				
Phone # Fax # <b>847-918-4000</b>			City State Zip																				
Sampler(s) Name(s) Phone # <b>David Jena 574-261-5413</b>			Attention: POB																				
Sampler(s) E-mail			Project Manager																				
Accutest Sample #	Field ID / Point of Collection	MEQ/DOl Viol #	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles												LAB USE ONLY			
								HCL	NH4OH	PHOS3	PHOS4	NONE	D1 Water	MESH	ENDORSE	Blank/No							
13	AL4-6(0.5-1.5)-030G14		3-6-14	10:30	DS	SO	3						X	X	X	X							
14	AL4-7(0.5-1.5)-030G14			10:45									X	X	X	X							
15	AL4-8(0.5-1.5)-030G14			11:00									X	X	X	X							
16	GM-1(0.5-1.5)-030G14			11:15									X	X	X	X							
17	GM-2(0.5-1.5)-030G14			11:30									X	X	X	X							
18	VLS-1(0.5-1.5)-030G14			12:30									X	X	X	X							
19	RES3-1(0.5-1.5)-030G14			12:50									X	X	X	X							
20	RES3-2(0.5-1.5)-030G14			13:05									X	X	X	X							

Data Deliverable Information				Comments / Special Instructions			
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM) / Date: _____		<input type="checkbox"/> Commercial "A" ( Level 1) <input type="checkbox"/> Commercial "B" ( Level 2) <input type="checkbox"/> FULLT1 ( Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____	
Commercial "A" = Results Only Commercial "B" = Results + QC Summary							
<b>Sample Custody must be documented below each time samples change possession, including courier delivery.</b>							
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	CHICAGO SC	
1 <b>David Jena</b>	3-6-14	<b>[Signature]</b>	2 <b>FEDX</b>	3-7-14	2 <b>[Signature]</b>		
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:		
3		3	4		4		
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable	<input type="checkbox"/>	On Ice <input type="checkbox"/> Cooler Temp. <input type="checkbox"/>
5		5					

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5

**MC28736: Chain of Custody**

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
1300 Claussen Drive

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD dddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.320933059 Longitude: -88.472752936  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner  
Name: Illinois Department of Transportation  
Street Address: 201 West Center Court  
PO Box: \_\_\_\_\_  
City: Schaumburg State: IL  
Zip Code: 60196-1096 Phone: 847-705-4101  
Contact: Sam Mead  
Email, if available: Sam.Mead@illinois.gov

Site Operator  
Name: Illinois Department of Transportation  
Street Address: 201 West Center Court  
PO Box: \_\_\_\_\_  
City: Schaumburg State: IL  
Zip Code: 60196-1096 Phone: 847-705-4101  
Contact: Sam Mead  
Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.320933059 Longitude: -88.472752936

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS KF-1 AND KF-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-53. SEE FIGURE 3-10 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28736

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

[Handwritten Signature]

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-53**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	KF-1(0.5-1.5)-030614	KF-2(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	3/6/2014	
Location ID	KF-1	KF-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.9	8.9	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	1.8	1.9	30
Carbon disulfide	ND	0.26 J	9000
Ethylbenzene	0.86 J	0.86 J	13000
Methylene chloride	1.8 J	1.5 J	20
Toluene	3.1 J	3.2 J	12000
Xylene (Total)	1.9 J	1.9 J	5600
<b>SVOCs (ug/kg)</b>	None Detected		
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	8.7	5.4	11.3 / 13
Barium, Total	23.5	37.9	1500
Beryllium, Total	0.21 J	0.3 J	22
Calcium, Total	75700	78100	---
Chromium, Total	8.9	9.6	21
Cobalt, Total	4.5	5.6	20
Copper, Total	17.2	14.3	2900
Iron, Total	27400	13900	15000 / 15900
Lead, Total	9	8.2	107
Magnesium, Total	37100	35100	325000
Manganese, Total	412	406	630 / 636
Mercury, Total	0.0094 J	0.012 J	0.89
Nickel, Total	12.5	13.3	100
Potassium, Total	670	850	---
Silver, Total	ND	0.18 J	4.4
Sodium, Total	2000	1300	---
Thallium, Total	0.72 J	0.75 J	2.6
Vanadium, Total	22.8	22.2	550
Zinc, Total	33.6 J	32.7 J	5100
<b>TCLP Metals (mg/l)</b>			
Barium, TCLP	0.27 J	0.38 J	2
Cadmium, TCLP	0.0011 J	0.0011 J	0.005
Cobalt, TCLP	0.0055 J	0.0087 J	1
Copper, TCLP	ND	0.0071 J	0.65
Manganese, TCLP	1.4	2.2	0.15
Nickel, TCLP	0.014 J	0.02 J	0.1
Zinc, TCLP	0.013 J	0.0068 J	5
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.043	0.062	0.05
Barium, SPLP	0.21 J	0.4 J	2
Beryllium, SPLP	0.0018 J	0.0034 J	0.004
Cadmium, SPLP	ND	0.0006 J	0.005
Chromium, SPLP	0.053	0.1	0.1
Cobalt, SPLP	0.033 J	0.04 J	1
Copper, SPLP	0.13	0.17	0.65
Iron, SPLP	81.1	136	5
Lead, SPLP	0.07	0.075	0.0075
Manganese, SPLP	1.1	1.7	0.15
Mercury, SPLP	ND	0.00017 J	0.002
Nickel, SPLP	0.084	0.13	0.1
Zinc, SPLP	0.31 J	0.42 J	5

**Summary Table of ISGS Site No. 2792-53**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**


**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> KF-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-7	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63836.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	5.41 g	5.0 ml

### VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/kg	
71-43-2	Benzene	1.8	0.51	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.1	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.77	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.27	ug/kg	
100-41-4	Ethylbenzene	0.86	2.0	0.70	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.55	ug/kg	
75-09-2	Methylene chloride	1.8	2.0	0.54	ug/kg	J
100-42-5	Styrene	ND	5.1	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	3.1	5.1	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.19  
**4**



## Report of Analysis

<b>Client Sample ID:</b> KF-1(0.5-1.5)-030614		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-7		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 91.0
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	1.9	2.0	0.22	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-28-5	Isobutane	4.78	75	ug/kg	JN
106-97-8	Butane	5.10	51	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	29	ug/kg	JN
109-66-0	Pentane	6.49	24	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.84	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.15	7.4	ug/kg	JN
110-54-3	Hexane	8.46	13	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8.9	ug/kg	JN
110-82-7	Cyclohexane	9.91	7.8	ug/kg	JN
142-82-5	Heptane	10.51	5.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	10	ug/kg	JN
	Total TIC, Volatile		246.8	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.19  
4

## Report of Analysis

<b>Client Sample ID:</b> KF-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-7	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37433.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	22	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	KF-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-7	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	84%		30-130%
4165-62-2	Phenol-d5	81%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	88%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> KF-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-7 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.0
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	105%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.67	5900	ug/kg JN
	Total TIC, Semi-Volatile		5900	ug/kg J

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 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.19  
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# Report of Analysis

<b>Client Sample ID:</b> KF-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-7	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	8.7	0.88	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	23.5	4.4	0.064	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.21 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	75700	4400	55	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.9	0.88	0.084	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5	4.4	0.041	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	17.2	2.2	0.49	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	27400	8.8	0.76	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	9.0	0.88	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	37100	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	412	1.3	0.035	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0094 B	0.035	0.0078	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	12.5	3.5	0.039	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	670	440	7.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2000	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.72 B	0.88	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.8	0.88	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	33.6	1.8	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> KF-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-7	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.9		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.19  
**4**

## Report of Analysis

<b>Client Sample ID:</b> KF-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-7A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.0
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.27 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0055 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.20  
4

## Report of Analysis

<b>Client Sample ID:</b> KF-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-7B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.043		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.21 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0018 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.053		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.033 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	81.1		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.070		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.084		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.31		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.21  
4



## Report of Analysis

<b>Client Sample ID:</b> KF-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-8	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63837.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.31 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	1.9	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.62	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	0.26	5.2	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.78	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.59	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.44	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	0.86	2.1	0.72	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	1.5	2.1	0.55	ug/kg	J
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	3.2	5.2	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.22  
4

## Report of Analysis

<b>Client Sample ID:</b> KF-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-8	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.60	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.94	ug/kg	
1330-20-7	Xylene (total)	1.9	2.1	0.23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	46	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	24	ug/kg	JN
109-66-0	Pentane	6.48	20	ug/kg	JN
	Unknown	7.83	13	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.5	ug/kg	JN
110-54-3	Hexane	8.46	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.16	7.4	ug/kg	JN
110-82-7	Cyclohexane	9.92	6.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.9	ug/kg	JN
	Total TIC, Volatile		142.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	KF-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-8	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37434.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	68	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	38	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	KF-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-8	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	71%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> KF-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.8
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	5500	ug/kg	JN
	Total TIC, Semi-Volatile		5500	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.22  
4

# Report of Analysis

<b>Client Sample ID:</b> KF-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-8	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.4	0.87	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	37.9	4.4	0.063	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.30 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	78100	4400	55	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.6	0.87	0.083	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.6	4.4	0.041	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.3	2.2	0.49	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13900	8.7	0.76	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.2	0.87	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	35100	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	406	1.3	0.035	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.012 B	0.034	0.0075	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	13.3	3.5	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	850	440	7.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.18 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1300	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.75 B	0.87	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.2	0.87	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	32.7	1.7	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.22  
 4

## Report of Analysis

<b>Client Sample ID:</b> KF-2(0.5-1.5)-030614		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-8		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL		

4.22  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.8		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.9		su	1	03/11/14	MA	SW846 9045D

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> KF-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-8A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.8
--	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.38 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0087 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0071 B			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.2			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.020 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0068 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> KF-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-8B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.062		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.40 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0034 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.10		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.040 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	136		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.075		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00017 B		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.13		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.42		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.24  
4







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

14111 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.321766187 Longitude: -88.472879983

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.321766187 Longitude: -88.472879983

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS RE9-1 AND RE9-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-54. SEE FIGURE 3-10 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28688


**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-54**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE9-1(0.5-1.5)-030414	RE9-2(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	
Location ID	RE9-1	RE9-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.9	8.9	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Acetone	19.5 J	16.4 J	25000
Benzene	2.7	2.8	30
Carbon disulfide	0.41 J	0.46 J	9000
Ethylbenzene	2	2.2	13000
Methylene chloride	2.5	2.2	20
Toluene	5.8	6.3	12000
Xylene (Total)	4.1	4.8	5600
<b>SVOCs (ug/kg)</b>			
bis(2-Ethylhexyl)phthalate	34.5 J	12.4 J	46000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	4.1	4.3	11.3 / 13
Barium, Total	27.1	31.2	1500
Beryllium, Total	0.2 J	0.21 J	22
Calcium, Total	108000	85400	---
Chromium, Total	8.6	11.2	21
Cobalt, Total	4.2 J	5.8	20
Copper, Total	11	24.8	2900
Iron, Total	9260	10900	15000 / 15900
Lead, Total	5.7	6.7	107
Magnesium, Total	58400	42100	325000
Manganese, Total	330	410	630 / 636
Mercury, Total	0.013 J	0.0099 J	0.89
Nickel, Total	9.7	14.5	100
Potassium, Total	741	774	---
Sodium, Total	1300	1060	---
Vanadium, Total	14.7	17.9	550
Zinc, Total	23.1 J	27.8 J	5100
<b>TCLP Metals (mg/l)</b>			
Barium, TCLP	0.35 J	0.37 J	2
Cadmium, TCLP	0.0007 J	0.0008 J	0.005
Cobalt, TCLP	0.0052 J	0.0011 J	1
Manganese, TCLP	2.1	1.3	0.15
Nickel, TCLP	0.02 J	0.014 J	0.1
Selenium, TCLP	0.0084 J	0.0085 J	0.05
Silver, TCLP	0.0011 J	0.0013 J	0.05
Zinc, TCLP	0.0054 J	0.0057 J	5
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.044	0.043	0.05
Barium, SPLP	0.32 J	0.28 J	2
Beryllium, SPLP	0.0026 J	0.0021 J	0.004
Cadmium, SPLP	0.0012 J	0.0009 J	0.005
Chromium, SPLP	0.078	0.068	0.1
Cobalt, SPLP	0.03 J	0.023 J	1
Copper, SPLP	0.13	0.11	0.65
Iron, SPLP	97.8	86.7	5
Lead, SPLP	0.055	0.038	0.0075
Manganese, SPLP	1.5 J	1 J	0.15
Mercury, SPLP	0.00011 J	ND	0.002
Nickel, SPLP	0.089	0.066	0.1
Zinc, SPLP	0.31	0.27	5

**Summary Table of ISGS Site No. 2792-54**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**


**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28688

Sampling Date: 03/04/14

Report to:

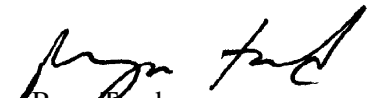
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **266**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.



# Report of Analysis

<b>Client Sample ID:</b> RE9-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-16	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28689.D	1	03/14/14	AMY	n/a	n/a	MSV1075

Run #1	Initial Weight	Final Volume
Run #2	5.44 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	19.5	10	2.8	ug/kg	
71-43-2	Benzene	2.7	0.51	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	0.41	5.1	0.13	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.76	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.27	ug/kg	
100-41-4	Ethylbenzene	2.0	2.0	0.70	ug/kg	
591-78-6	2-Hexanone	ND	10	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.55	ug/kg	
75-09-2	Methylene chloride	2.5	2.0	0.54	ug/kg	
100-42-5	Styrene	ND	5.1	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	5.8	5.1	0.21	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE9-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-16	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	4.1	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	23	ug/kg	JN
109-66-0	Pentane	2.43	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.86	5.3	ug/kg	JN
110-54-3	Hexane	4.26	8.9	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.32	4.7	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.83	2.6	ug/kg	JN
822-50-4	Cyclopentane, 1,2-dimethyl-, trans	7.37	1.9	ug/kg	JN
142-82-5	Heptane	7.56	5.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.34	9.8	ug/kg	JN
2695-47-8	1-Hexene, 6-bromo-	9.80	4.4	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.56	1.6	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.54	1.8	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.96	3.1	ug/kg	JN
	Total TIC, Volatile		87.4	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE9-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-16	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37400.D	1	03/11/14	KR	03/05/14	OP37068	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	22	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE9-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-16	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	34.5	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	82%		30-130%
4165-62-2	Phenol-d5	80%		30-130%
118-79-6	2,4,6-Tribromophenol	88%		30-130%
4165-60-0	Nitrobenzene-d5	81%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	89%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5800	ug/kg	JN
	Total TIC, Semi-Volatile		5800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> RE9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.1	0.89	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.1	4.4	0.064	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.20 B	0.35	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.35	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	108000	4400	56	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.6	0.89	0.084	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.2 B	4.4	0.042	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	11.0	2.2	0.49	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	9260	8.9	0.77	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	5.7	0.89	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	58400	440	4.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	330	1.3	0.035	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.013 B	0.035	0.0077	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	9.7	3.5	0.039	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	741	440	7.6	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1300	440	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.89	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	14.7	0.89	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	23.1	1.8	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.9		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.9		su	1	03/07/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> RE9-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-16A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.9
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.35 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00070 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0052 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.020 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0084 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0011 B	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0054 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit                      MDL = Method Detection Limit      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> RE9-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-16B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.044		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.32 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0026 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0012 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.078		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.030 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	97.8		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.055		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.5		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00011 B		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.089		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.31		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE9-2(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-17		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 95.2
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28690.D	1	03/14/14	AMY	n/a	n/a	MSV1075
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.34 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	16.4	9.8	2.8	ug/kg	
71-43-2	Benzene	2.8	0.49	0.33	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.35	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.59	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.8	3.0	ug/kg	
75-15-0	Carbon disulfide	0.46	4.9	0.13	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.9	0.74	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	4.9	0.55	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.41	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.44	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.41	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.41	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.41	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.26	ug/kg	
100-41-4	Ethylbenzene	2.2	2.0	0.68	ug/kg	
591-78-6	2-Hexanone	ND	9.8	0.74	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.9	0.53	ug/kg	
75-09-2	Methylene chloride	2.2	2.0	0.52	ug/kg	
100-42-5	Styrene	ND	4.9	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.39	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.31	ug/kg	
108-88-3	Toluene	6.3	4.9	0.20	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.21	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> RE9-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28688-17	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 95.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.56	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.89	ug/kg	
1330-20-7	Xylene (total)	4.8	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	105%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.19	30	ug/kg	JN
109-66-0	Pentane	2.43	20	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.85	6.1	ug/kg	JN
110-54-3	Hexane	4.27	11	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	5.32	5.4	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.83	3.1	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.37	2.2	ug/kg	JN
142-82-5	Heptane	7.56	6.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.33	11	ug/kg	JN
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	9.95	1.8	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.56	1.8	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.54	2.1	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.96	3.5	ug/kg	JN
	Total TIC, Volatile		104.2	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE9-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-17	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37371.D	1	03/11/14	KR	03/05/14	OP37068	MSR1380
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	510	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	510	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	510	84	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	510	64	ug/kg	
95-48-7	2-Methylphenol	ND	510	20	ug/kg	
106-44-5	4-Methylphenol	ND	510	26	ug/kg	
88-75-5	2-Nitrophenol	ND	510	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	96	ug/kg	
87-86-5	Pentachlorophenol	ND	510	36	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	510	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	510	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	12	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	10	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	510	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	18	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RE9-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28688-17	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	510	34	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	510	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	27	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.0	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	12.4	260	9.5	ug/kg	J
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	510	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	12	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	11	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	510	13	ug/kg	
99-09-2	3-Nitroaniline	ND	510	28	ug/kg	
100-01-6	4-Nitroaniline	ND	510	13	ug/kg	
91-20-3	Naphthalene	ND	100	16	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	15	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE9-2(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-17 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 95.2
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	85%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5100	ug/kg	JN
	Total TIC, Semi-Volatile		5100	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RE9-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-17	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.86	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.3	0.86	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	31.2	4.3	0.063	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.21 B	0.34	0.020	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.036 U	0.34	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	85400	4300	54	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.2	0.86	0.082	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.8	4.3	0.040	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	24.8	2.2	0.48	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10900	8.6	0.75	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	6.7	0.86	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	42100	430	4.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	410	1.3	0.034	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0099 B	0.032	0.0070	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	14.5	3.4	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	774	430	7.4	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.86	0.30	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1060	430	2.8	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.11 U	0.86	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.9	0.86	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	27.8	1.7	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE9-2(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28688-17 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 95.2
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	95.2		%	1	03/10/14	BF	SM21 2540 B MOD.
pH	8.9		su	1	03/07/14	MA	SW846 9045D

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RL = Reporting Limit



# Report of Analysis

<b>Client Sample ID:</b> RE9-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-17A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.37 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0011 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0085 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0013 B	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0057 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16851
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22645
- (4) Prep QC Batch: MP22649

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE9-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28688-17B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.043		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.28 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0021 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00090 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.068		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.023 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	86.7		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.038		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.0		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.066		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.27		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16849
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22639
- (4) Prep QC Batch: MP22643

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)										Matrix Codes									
Company Name <i>Wexton Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment CL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
Street Address <i>750 E. Banker Ct St. 500</i>		Street:																					
City State Zip <i>Newark IL 60061</i>		City:																					
Project Contact <i>S. Babuskar</i>		Project#																					
Phone # Fax # <i>847-918-7018 -4055</i>		Client POB																					
Sampler(s) Name(s) Phone # <i>T. Walk 847-918-4130</i>		Project Manager																					
Account # <i>A128688</i>		Collection		Number of preserved Bottles										LAB USE ONLY									
Field ID / Point of Collection		MECHID / Vol #		Date	Time	Sampled by	Matrix	# of bottles	HCL	NH3	NH4	NH2	NO3	NO2	NO	DI	WATER	MEDIA	ENDORE	Residue			
<i>REB-1(0.5-1.5)-030414</i>				<i>3-4-14</i>	<i>1115</i>	<i>TW</i>	<i>SO</i>	<i>3</i>															
<i>AL4-1(0.5-1.5)-030414</i>					<i>1205</i>																		
<i>N29-1(0.5-1.5)-030414</i>					<i>1215</i>																		
<i>NL9-2(0.5-1.5)-030414</i>					<i>1225</i>																		
<i>AL4-2(0.5-1.5)-030414</i>					<i>1240</i>																		
<i>AL4-3(0.5-1.5)-030414</i>					<i>1250</i>																		
<i>RES4-1(0.5-1.5)-030414</i>					<i>1300</i>																		
<i>NL11-1(0.5-1.5)-030414</i>					<i>1310</i>																		
<i>PN-1(0.5-1.5)-030414</i>					<i>1325</i>																		
<i>PN-2(0.5-1.5)-030414</i>					<i>1335</i>																		
<i>PN-3(0.5-1.5)-030414</i>				<i>3-4-14</i>	<i>1350</i>	<i>TW</i>	<i>SO</i>	<i>3</i>															
<i>PN-3(0.5-1.5)-030414</i>																							
Turnaround Time ( Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information										Comments / Special Instructions									
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + OC Summary										<i>loc 143, GFI</i>									
Emergency & Rush T/A data available VIA Lablink				Sample Custody must be documented below each time samples change possession, including courier delivery.										CHICAGO SIC									
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:															
<i>1 T. Walk</i>	<i>3-4-14 / 15:40</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>3/5/14 15:40</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>3/5/14 15:40</i>	<i>[Signature]</i>															
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:															
<i>3</i>		<i>3</i>	<i>4</i>		<i>4</i>	<i>4</i>		<i>4</i>															
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	<input type="checkbox"/> On Ice	Cooler Temp.																
<i>5</i>		<i>5</i>		<input type="checkbox"/> Not intact	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>1.4°C</i>																

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MC28688: Chain of Custody

Page 1 of 3

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest Job # <b>MC28688</b>	
<b>Client / Reporting Information</b>		<b>Project Information</b>	
Company Name <b>Weston Solutions</b>		Project Name <b>JDOT-048 McHenry County</b>	
Street Address <b>750 E. Bunker Ct Ste 500</b>		Street:	
City State Zip <b>Norwich Hills IL 60061</b>		Billing Information (If different from Report to)	
Project Contact <b>S. Babasankumar</b>		Company Name	
Phone # <b>847-918-4018</b>		Street Address	
Fax # <b>-4055</b>		City State Zip	
Sampler(s) Name(s) <b>T. Wells</b>		Project Manager <b>[Signature]</b>	
Phone # <b>847-918-4130</b>		Attention: POC#	
Accutest Sample # <b>MC28688</b>		Collection	
Field ID / Point of Collection		MED/HD/VI #	
Date		Time	
Sampled by		Matrix	
# of bottles		Number of preserved Bottles	
HCF		NHCH	
NHOS		NHOS	
H2SO4		H2SO4	
NONE		NONE	
DI Water		DI Water	
MEDIH		MEDIH	
ENCORE		ENCORE	
Bottle		Bottle	
LAB USE ONLY		LAB USE ONLY	
13 PV-4(0.5-1.5)-030414		3-4-14 1400 TW SO 3	
14 PV-5(0.5-1.5)-030414		1415	
15 PV-6(0.5-1.5)-030414		1425	
16 RE9-1(0.5-1.5)-030414		1440	
17 RE9-2(0.5-1.5)-030414		3-4-14 1450 TW SO 3	
Requested Analysis (see TEST CODE sheet)		Matrix Codes	
VOCs		DW - Drinking Water	
SUDCs		GW - Ground Water	
Total Metals		WW - Water	
TELP/SPLP Metals		SW - Surface Water	
PH		SO - Soil	
		SL - Sludge	
		SED - Sediment	
		OI - Oil	
		LIQ - Other Liquid	
		AIR - Air	
		SOL - Other Solid	
		WP - Wipe	
		FB - Field Blank	
		EB - Equipment Blank	
		RB - Rinse Blank	
		TB - Trip Blank	
Data Deliverable Information		Comments / Special Instructions	
Turnaround Time (Business days)		Approved By (Accutest PM) / Date:	
<input checked="" type="checkbox"/> Std. 10 Business Days			
<input type="checkbox"/> Std. 5 Business Days (By Contract only)			
<input type="checkbox"/> 5 Day RUSH			
<input type="checkbox"/> 3 Day EMERGENCY			
<input type="checkbox"/> 2 Day EMERGENCY			
<input type="checkbox"/> 1 Day EMERGENCY			
Emergency & Rush T/A data available VIA Lablink		Commercial "A" (Level 1)	
		Commercial "B" (Level 2)	
		FULL T1 (Level 3+4)	
		CT RCP	
		MA MCP	
		NYASP Category A	
		NYASP Category B	
		State Forms	
		EDD Format	
		Other _____	
		Commercial "A" = Results Only	
		Commercial "B" = Results + QC Summary	
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:
1 <b>[Signature]</b>	3-4-14/1500	<b>[Signature]</b>	2 <b>[Signature]</b>
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:
3		3	4
Relinquished by:	Date Time:	Received By:	Relinquished By:
5		5	4
Custody Seal #		Preserved where applicable	
<input type="checkbox"/> Intact		<input type="checkbox"/> On Ice	
<input type="checkbox"/> Not Intact		<input type="checkbox"/> Cooler Temp.	

**MC28688: Chain of Custody**

Page 2 of 3



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

1300 Kishwaukee Valley Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.318486432 Longitude: -88.472732713

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

EPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.318486432 Longitude: -88.472732713Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS GL-1, GL-2, AND GL-3 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-55. SEE FIGURES 3-10 AND 3-11 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28736

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

Seal:

**Summary Table of ISGS Site No. 2792-55**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	GL-1(0.5-1.5)-030614	GL-2(0.5-1.5)-030614	GL-3(0.5-1.5)-030614	GL-3(0.5-1.5)-030614D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	GL-1	GL-2	GL-3	GL-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.8	8.6	8.9	8.9	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Benzene	2.5	1.6	2.3	1.8	30
Ethylbenzene	1.1 J	ND	1.2 J	0.88 J	13000
Methylene chloride	1.7 J	1.8 J	2.3 J	1.7 J	20
Toluene	4.3 J	2.8 J	4.4 J	3.3 J	12000
Xylene (Total)	2.5	2.3 J	3.3	2.4	5600
<b>SVOCs (ug/kg)</b>					
Benzo(g,h,i)perylene	ND	34.9 J	ND	ND	2300000
bis(2-Ethylhexyl)phthalate	ND	ND	15.6 J	ND	46000
Pyrene	ND	17.8 J	ND	ND	2300000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	5.9	7	4.2	4.4	11.3 / 13
Barium, Total	20	38.9	20.3	22.5	1500
Beryllium, Total	0.19 J	0.3 J	0.22 J	0.22 J	22
Calcium, Total	93200 J	80400	94700	90900	---
Chromium, Total	7.5	10.3	7.7	9.2	21
Cobalt, Total	3.8 J	6	4.2 J	3.9 J	20
Copper, Total	13.3	15.7	11.2	11.5	2900
Iron, Total	11900	18200	11300	12000	15000 / 15900
Lead, Total	5.3	20.4	11.5	16	107
Magnesium, Total	49500	37300	40300	39800	325000
Manganese, Total	436	467	326	352	630 / 636
Mercury, Total	0.011 J	0.015 J	0.008 J	ND	0.89
Nickel, Total	10.7	16.9	11.1	10.7	100
Potassium, Total	617	880	758	823	---
Silver, Total	0.13 J	ND	0.12 J	0.15 J	4.4
Sodium, Total	2600	4080	1640	1970	---
Thallium, Total	0.67 J	0.87 J	0.58 J	0.66 J	2.6
Vanadium, Total	19	27.8	16.4	17.7	550
Zinc, Total	28.2 J	47.2 J	28.4 J	30.2 J	5100
<b>TCLP Metals (mg/l)</b>					
Barium, TCLP	0.15 J	0.47 J	0.24 J	0.24 J	2
Cadmium, TCLP	ND	0.002 J	0.0011 J	0.0009 J	0.005
Chromium, TCLP	ND	ND	ND	0.0021 J	0.1
Cobalt, TCLP	0.0055 J	0.016 J	0.0015 J	0.0016 J	1
Copper, TCLP	ND	ND	ND	ND	0.65
Iron, TCLP	ND	0.072 J	ND	ND	5
Manganese, TCLP	1.5	5.1	0.98	0.94	0.15
Nickel, TCLP	0.018 J	0.023 J	0.01 J	0.01 J	0.1
Selenium, TCLP	0.005 J	ND	0.0053 J	ND	0.05
Silver, TCLP	ND	0.0013 J	0.001 J	ND	0.05
Zinc, TCLP	0.0078 J	0.019 J	0.0067 J	0.0066 J	5

**Summary Table of ISGS Site No. 2792-55**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	GL-1(0.5-1.5)-030614	GL-2(0.5-1.5)-030614	GL-3(0.5-1.5)-030614	GL-3(0.5-1.5)-030614D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	GL-1	GL-2	GL-3	GL-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.0059 J	0.043	0.045	0.035	0.05
Barium, SPLP	0.022 J	0.35 J	0.24 J	0.19 J	2
Beryllium, SPLP	ND	0.0026 J	0.0026 J	0.0018 J	0.004
Cadmium, SPLP	ND	0.0008 J	ND	ND	0.005
Chromium, SPLP	0.014	0.078	0.073	0.051	0.1
Cobalt, SPLP	0.0023 J	0.045 J	0.029 J	0.025 J	1
Copper, SPLP	0.014 J	0.16	0.13	0.11	0.65
Iron, SPLP	7.3	106	102	72.6	5
Lead, SPLP	0.0046 J	0.17	0.075	0.079	0.0075
Manganese, SPLP	0.11	1.6	0.94	0.86	0.15
Mercury, SPLP	ND	0.00012 J	0.00012 J	ND	0.002
Nickel, SPLP	0.0071 J	0.12	0.095	0.072	0.1
Zinc, SPLP	0.037 J	0.37 J	0.33 J	0.28 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

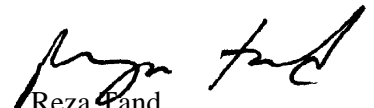
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b> GL-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.91	ug/kg	
1330-20-7	Xylene (total)	2.5	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	47	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	24	ug/kg	JN
109-66-0	Pentane	6.48	20	ug/kg	JN
54125-39-2	trans-2,3-Epoxydecane	7.83	12	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.6	ug/kg	JN
110-54-3	Hexane	8.46	10	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.1	ug/kg	JN
110-82-7	Cyclohexane	9.91	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.5	ug/kg	JN
	Total TIC, Volatile		141.8	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	GL-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37429.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	22	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GL-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		30-130%
4165-62-2	Phenol-d5	83%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	84%		30-130%
321-60-8	2-Fluorobiphenyl	89%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GL-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-3 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.0
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	103%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

# Report of Analysis

<b>Client Sample ID:</b> GL-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.9	0.87	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	20.0	4.4	0.063	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	93200	4400	55	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	7.5	0.87	0.083	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.8 B	4.4	0.041	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	13.3	2.2	0.48	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	11900	8.7	0.76	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	5.3	0.87	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	49500	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	436	1.3	0.035	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.033	0.0072	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	10.7	3.5	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	617	440	7.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.87	0.30	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.13 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	2600	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.67 B	0.87	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	19.0	0.87	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	28.2	1.7	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16856
- (2) Instrument QC Batch: MA16857
- (3) Instrument QC Batch: MA16859
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
 4

## Report of Analysis

<b>Client Sample ID:</b> GL-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.8		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.7  
4



# Report of Analysis

<b>Client Sample ID:</b> GL-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-3A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Barium	0.15 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00050 U	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0055 B			0.050	0.00040	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.5			0.015	0.00081	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0050 B	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0078 B			0.10	0.00050	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.8  
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## Report of Analysis

<b>Client Sample ID:</b> GL-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-3B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.0
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0059 B		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.022 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00025 U		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.014		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0023 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.014 B		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	7.3		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.0046 B		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.11		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.0071 B		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.037 B		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.9  
4

## Report of Analysis

<b>Client Sample ID:</b>	GL-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-4	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63833.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.80 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	1.6	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.89	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	2.4	0.81	ug/kg	
591-78-6	2-Hexanone	ND	12	0.89	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.63	ug/kg	
75-09-2	Methylene chloride	1.8	2.4	0.62	ug/kg	J
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	2.8	5.9	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GL-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	2.3	2.4	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	51	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	24	ug/kg	JN
109-66-0	Pentane	6.49	26	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.84	13	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.15	6.1	ug/kg	JN
110-54-3	Hexane	8.46	13	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.1	ug/kg	JN
110-82-7	Cyclohexane	9.92	7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.5	ug/kg	JN
	Total TIC, Volatile		156.7	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.10  
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## Report of Analysis

<b>Client Sample ID:</b> GL-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-4	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37430.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	34.9	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GL-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-4	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	17.8	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	87%		30-130%
4165-62-2	Phenol-d5	84%		30-130%
118-79-6	2,4,6-Tribromophenol	90%		30-130%
4165-60-0	Nitrobenzene-d5	84%		30-130%
321-60-8	2-Fluorobiphenyl	89%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GL-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	100%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> GL-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	7.0	0.95	0.20	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	38.9	4.7	0.069	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.30 B	0.38	0.023	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.040 U	0.38	0.040	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	80400	4700	60	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	10.3	0.95	0.090	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.0	4.7	0.045	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	15.7	2.4	0.53	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	18200	9.5	0.83	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	20.4	0.95	0.16	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	37300	470	4.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	467	1.4	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.034	0.0075	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	16.9	3.8	0.042	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	880	470	8.1	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.95	0.33	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	4080	470	3.1	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.87 B	0.95	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	27.8	0.95	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	47.2	1.9	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16856
- (2) Instrument QC Batch: MA16857
- (3) Instrument QC Batch: MA16859
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> GL-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.5		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.6		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> GL-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-4A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Barium	0.47 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0020 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.016 B			0.050	0.00040	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Iron	0.072 B			0.10	0.020	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.1			0.015	0.00081	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.023 B			0.040	0.00057	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0013 B	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.019 B			0.10	0.00050	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.11  
4

## Report of Analysis

<b>Client Sample ID:</b> GL-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-4B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.043		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.35 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0026 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.078		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.045 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.16		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	106		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.17		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.6		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00012 B		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.12  
4

## Report of Analysis

<b>Client Sample ID:</b>	GL-3(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-5	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63834.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	4.39 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.5	ug/kg	
71-43-2	Benzene	2.3	0.63	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	0.26	ug/kg	
75-25-2	Bromoform	ND	2.5	0.45	ug/kg	
74-83-9	Bromomethane	ND	2.5	0.76	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.9	ug/kg	
75-15-0	Carbon disulfide	ND	6.3	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.5	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.3	0.95	ug/kg	
67-66-3	Chloroform	ND	2.5	0.21	ug/kg	
74-87-3	Chloromethane	ND	6.3	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	0.41	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	0.34	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	0.40	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	0.52	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.57	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.52	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.5	0.52	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	0.53	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.33	ug/kg	
100-41-4	Ethylbenzene	1.2	2.5	0.87	ug/kg	J
591-78-6	2-Hexanone	ND	13	0.95	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.3	0.68	ug/kg	
75-09-2	Methylene chloride	2.3	2.5	0.67	ug/kg	J
100-42-5	Styrene	ND	6.3	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.49	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.39	ug/kg	
108-88-3	Toluene	4.4	6.3	0.26	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.27	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-5	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.72	ug/kg	
79-01-6	Trichloroethene	ND	2.5	0.31	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	1.1	ug/kg	
1330-20-7	Xylene (total)	3.3	2.5	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	52	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	28	ug/kg	JN
109-66-0	Pentane	6.49	25	ug/kg	JN
	Unknown	7.83	16	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7	ug/kg	JN
110-54-3	Hexane	8.46	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8.9	ug/kg	JN
110-82-7	Cyclohexane	9.92	8.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
	Total TIC, Volatile		171.5	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GL-3(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-5	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37431.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	22	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GL-3(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-5	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	15.6	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	83%		30-130%
4165-62-2	Phenol-d5	80%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	81%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-5 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6200	ug/kg	JN
	Total TIC, Semi-Volatile		6200	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.13  
4



# Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-5	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.2	0.88	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	20.3	4.4	0.064	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.22 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	94700	4400	55	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	7.7	0.88	0.083	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.2 B	4.4	0.041	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	11.2	2.2	0.49	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11300	8.8	0.76	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	11.5	0.88	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	40300	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	326	1.3	0.035	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0080 B	0.033	0.0074	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	11.1	3.5	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	758	440	7.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.88	0.30	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1640	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.58 B	0.88	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	16.4	0.88	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	28.4	1.8	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-5	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.6		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.9		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.13  
**4**

## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-5A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.6
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.24 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0015 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.98			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.010 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0053 B	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 B	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0067 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.14  
4

## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-5B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.045		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.24 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0026 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.073		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.029 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	102		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.075		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.94		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00012 B		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.095		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.33		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.15  
4

## Report of Analysis

<b>Client Sample ID:</b>	GL-3(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-6	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.2
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63835.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.38 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	1.8	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.62	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.78	ug/kg	
67-66-3	Chloroform	ND	2.1	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	0.88	2.1	0.71	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.78	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	1.7	2.1	0.55	ug/kg	J
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.32	ug/kg	
108-88-3	Toluene	3.3	5.2	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.22	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-6	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.59	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.94	ug/kg	
1330-20-7	Xylene (total)	2.4	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	45	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	21	ug/kg	JN
109-66-0	Pentane	6.48	19	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.83	12	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.6	ug/kg	JN
110-54-3	Hexane	8.46	12	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	6.6	ug/kg	JN
110-82-7	Cyclohexane	9.91	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.9	ug/kg	JN
	Total TIC, Volatile		136.7	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614D	
<b>Lab Sample ID:</b> MC28736-6	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37432.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	67	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	27	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	GL-3(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-6	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.4	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	9.9	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	13	ug/kg	
99-09-2	3-Nitroaniline	ND	540	29	ug/kg	
100-01-6	4-Nitroaniline	ND	540	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		30-130%
4165-62-2	Phenol-d5	83%		30-130%
118-79-6	2,4,6-Tribromophenol	93%		30-130%
4165-60-0	Nitrobenzene-d5	85%		30-130%
321-60-8	2-Fluorobiphenyl	89%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28736-6 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.2
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	100%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6200	ug/kg	JN
	Total TIC, Semi-Volatile		6200	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-6	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.4	0.89	0.18	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	22.5	4.4	0.064	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.22 B	0.35	0.021	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.35	0.038	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	90900	4400	56	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.2	0.89	0.084	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.9 B	4.4	0.042	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	11.5	2.2	0.49	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12000	8.9	0.77	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	16.0	0.89	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	39800	440	4.5	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	352	1.3	0.035	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0075 U	0.034	0.0075	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.7	3.5	0.039	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	823	440	7.6	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.15 B	0.44	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1970	440	2.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.66 B	0.89	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.7	0.89	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	30.2	1.8	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16857
- (2) Instrument QC Batch: MA16859
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28736-6 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.2
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.2		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.9		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28736-6A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.2
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Barium	0.24 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0021 B	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0016 B			0.050	0.00040	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.94			0.015	0.00081	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.010 B			0.040	0.00057	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0066 B			0.10	0.00050	mg/l	1	03/14/14	03/15/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> GL-3(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-6B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.035		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.19 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0018 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.051		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.025 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	72.6		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.079		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.86		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.072		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.28		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.18  
4

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest Job # <i>MC28736</i>	
Requested Analysis (see TEST CODE sheet)			Matrix Codes

DW - Drinking Water	GW - Ground Water
VW - Vialter	SW - Surface Water
SO - Soil	SL - Sludge
SED - Sediment	CI - Oil
LIQ - Other Liquid	AIR - Air
SOL - Other Solid	WP - Wipe
FB - Field Blank	EB - Equipment Blank
RB - Rinse Blank	TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MECH/DI/Vial #	Date	Time	Sampled by	Matrix	# of bottles	NIC	NACH	PHND	PZSO4	NONE	D1 WWT	MEOH	ENCORE	Biosafe	VOCs	SIVOCs	Total Metals	TCLP/SLP Metals	pH	LAB USE ONLY
-1	EP-8 (0.5-1.5)-030614		3-6-14	7:55	DS	So	3										X	X	X	X		
-2	EP-9 (0.5-1.5)-030614			8:05													X	X	X	X		
-3	GL-1 (0.5-1.5)-030614			9:20													X	X	X	X		
-4	GL-2 (0.5-1.5)-030614			8:35													X	X	X	X		
-5	GL-3 (0.5-1.5)-030614			8:50													X	X	X	X		
-6	GL-3 (0.5-1.5)-030614			8:50													X	X	X	X		
-7	KF-1 (0.5-1.5)-030614			9:05													X	X	X	X		
-8	KF-2 (0.5-1.5)-030614			9:20													X	X	X	X		
-9	NG-1 (0.5-1.5)-030614			9:30													X	X	X	X		
-10	RES-1 (0.5-1.5)-030614			9:45													X	X	X	X		
-11	RES-2 (0.5-1.5)-030614			10:05													X	X	X	X		
-12	RES-3 (0.5-1.5)-030614			10:15													X	X	X	X		

Client / Reporting Information			Project Information						Requested Analysis (see TEST CODE sheet)												Matrix Codes
Company Name <i>Weston Solutions, Inc</i>			Project Name <i>DOT # 043 McHenry County</i>																		
Street Address <i>750 E Bunker Ct # 500</i>			Street																		
City State Zip <i>Vernon Hills IL 60061</i>			City																		
Project Contact <i>S. Babusurkumar</i>			Project #																		
Phone # <i>947-919-4000</i>			Client PO#																		
Sampler(s) Name(s) <i>David Sena</i>			Project Manager																		
Phone # <i>574-261-5413</i>			Attention:																		
			PO#																		

Data Deliverable Information				Comments / Special Instructions
<input checked="" type="checkbox"/> Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>		Approved By (Accutest PM): / Date: _____		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>
Comments / Special Instructions <i>see ISA, pF2</i>				

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: <i>David Sena</i>	Date Time: <i>3-7-14</i>	Received By: <i>S. Babusurkumar</i>	Received Date Time: <i>3/7/14</i>	Relinquished By: <i>FEDEX</i>	Received Date Time: <i>3-7-14</i>
Relinquished by Sampler: <i></i>	Date Time: <i></i>	Received By: <i></i>	Received Date Time: <i></i>	Relinquished By: <i></i>	Received Date Time: <i></i>
Relinquished by: <i></i>	Date Time: <i></i>	Received By: <i></i>	Received Date Time: <i></i>	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact

5.1  
5





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

13000 to 14000 blocks of US 14 (between Kishwaukee Valley Road to Dean Street)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.314326908 Longitude: -88.472882601  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.314326908 Longitude: -88.472882601Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS AL5-1, AL5-2, AND RP1-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-56. SEE FIGURE 3-11 AND 3-12 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28737

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-56**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL5-1(0.5-1.5)-030614	AL5-2(0.5-1.5)-030614	RP1-2(0.5-1.5)-030614	RP1-2(0.5-1.5)-030614D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	AL5-1	AL5-2	RP1-2	RP1-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.9	8.4	8.1	7.9	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Acetone	21.5 J	17.1 J	76.3 J	67.8 J	25000
Benzene	3.1	3.2	3.3	3	30
Ethylbenzene	2.1 J	2.7	2.1	2	13000
Methyl ethyl ketone	ND	ND	14	10.5	17000
Methylene chloride	2.2	2.5	3	2.9	20
Toluene	6.6	7.2	6.3	6	12000
Xylene (Total)	5.2	6.4	6.4	5.5	5600
<b>SVOCs (ug/kg)</b>					
bis(2-Ethylhexyl)phthalate	41.8 J	80.3 J	ND	ND	46000
Fluoranthene	ND	ND	85.2 J	152 J	3100000
Pyrene	ND	ND	72.6 J	115 J	2300000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	4.6	6	3.5	4.5	11.3 / 13
Barium, Total	17.8	38.9	27.3	38.3	1500
Beryllium, Total	0.14 J	0.31 J	0.17 J	0.23 J	22
Cadmium, Total	0.071 J	0.054 J	ND	0.088 J	5.2
Calcium, Total	89900	52400	129000	84700	---
Chromium, Total	7.5 J	9.6 J	10.7 J	9.8 J	21
Cobalt, Total	4.5	6	3.2 J	4.5	20
Copper, Total	13.1	14.7	10.8	13.1	2900
Iron, Total	11000 J	13300 J	8440 J	10600 J	15000 / 15900
Lead, Total	15.7	7.8	23.7	27.4	107
Magnesium, Total	43300	28400	71000	45200	325000
Manganese, Total	361 J	419 J	360 J	338 J	630 / 636
Mercury, Total	0.012 J	ND	ND	0.011 J	0.89
Nickel, Total	9	13.2	8.9	10.9	100
Potassium, Total	730	737	622	708	---
Sodium, Total	923 J	1740 J	1320 J	1520 J	---
Thallium, Total	0.34 J	0.19 J	0.24 J	0.25 J	2.6
Vanadium, Total	19.1	22.2	17.1	19.2	550
Zinc, Total	29.7 J	33.2 J	28.7 J	35.7 J	5100
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	0.0029 J	0.0039 J	0.0041 J	0.005 J	0.05
Barium, TCLP	0.25 J	0.37 J	0.62	0.53	2
Cadmium, TCLP	0.0012 J	0.0014 J	0.0019 J	0.0017 J	0.005
Cobalt, TCLP	0.004 J	0.0028 J	0.021 J	0.021 J	1
Iron, TCLP	0.021 J	0.056 J	0.12 J	0.092 J	5
Lead, TCLP	ND	ND	0.0019 J	0.0017 J	0.0075
Manganese, TCLP	2	1.5	5.2	4.8	0.15
Nickel, TCLP	0.015 J	0.014 J	0.021 J	0.022 J	0.1
Selenium, TCLP	0.0073 J	0.0057 J	ND	0.0051 J	0.05
Zinc, TCLP	0.013 J	0.0076 J	0.035 J	0.056 J	5

**Summary Table of ISGS Site No. 2792-56**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	AL5-1(0.5-1.5)-030614	AL5-2(0.5-1.5)-030614	RP1-2(0.5-1.5)-030614	RP1-2(0.5-1.5)-030614D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	AL5-1	AL5-2	RP1-2	RP1-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
SPLP Metals (mg/l)					
Arsenic, SPLP	0.059	0.06	0.029	0.027	0.05
Barium, SPLP	0.29 J	0.34 J	0.31 J	0.32 J	2
Beryllium, SPLP	0.0034 J	0.0029 J	0.0024 J	0.0021 J	0.004
Cadmium, SPLP	0.0006 J	0.0006 J	0.0008 J	0.0006 J	0.005
Chromium, SPLP	0.097	0.078	0.072	0.064	0.1
Cobalt, SPLP	0.032 J	0.035 J	0.029 J	0.027 J	1
Copper, SPLP	0.15	0.15	0.093	0.088	0.65
Iron, SPLP	125 J	118 J	75.5 J	69.9 J	5
Lead, SPLP	0.082	0.063	0.11	0.11	0.0075
Manganese, SPLP	1.6	1.3	1.1	0.96	0.15
Mercury, SPLP	0.00019 J	ND	0.00011 J	ND	0.002
Nickel, SPLP	0.12	0.1	0.083	0.076	0.1
Zinc, SPLP	0.39	0.44	0.31	0.28	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28737

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **319**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> AL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28781.D	1	03/18/14	AMY	n/a	n/a	MSV1079

Run #1	Initial Weight	Final Volume
Run #2	4.91 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	21.5	11	3.1	ug/kg	
71-43-2	Benzene	3.1	0.56	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.67	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	ND	5.6	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.6	0.84	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.6	0.63	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.46	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	2.1	2.2	0.77	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.84	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.6	0.60	ug/kg	
75-09-2	Methylene chloride	2.2	2.2	0.59	ug/kg	
100-42-5	Styrene	ND	5.6	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.35	ug/kg	
108-88-3	Toluene	6.6	5.6	0.23	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL5-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-4	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.4
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.64	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	5.2	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	33	ug/kg	JN
109-66-0	Pentane	2.41	20	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.83	6.5	ug/kg	JN
110-54-3	Hexane	4.24	10	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	5.5	ug/kg	JN
142-82-5	Heptane	7.53	5.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	11	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.53	3	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	4.6	ug/kg	JN
5877-42-9	1-Octyn-3-ol, 4-ethyl-	13.44	2.9	ug/kg	JN
933-98-2	Benzene, 1-ethyl-2,3-dimethyl-	14.68	3.1	ug/kg	JN
264-09-5	Benzocycloheptatriene	16.26	8.3	ug/kg	JN
91-57-6	Naphthalene, 2-methyl-	16.44	6.2	ug/kg	JN
	Total TIC, Volatile		119.8	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL5-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-4	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18104.D	1	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	88	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	67	ug/kg	
95-48-7	2-Methylphenol	ND	540	21	ug/kg	
106-44-5	4-Methylphenol	ND	540	27	ug/kg	
88-75-5	2-Nitrophenol	ND	540	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL5-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-4	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.4	ug/kg	
84-66-2	Diethyl phthalate	25.4	270	13	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	41.8	270	9.9	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	13	ug/kg	
99-09-2	3-Nitroaniline	ND	540	29	ug/kg	
100-01-6	4-Nitroaniline	ND	540	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-130%
4165-62-2	Phenol-d5	71%		30-130%
118-79-6	2,4,6-Tribromophenol	89%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> AL5-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-4 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> AL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

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## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.6	0.88	0.18	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	17.8	4.4	0.064	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.14 B	0.35	0.021	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.071 B	0.35	0.037	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	89900	4400	55	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	7.5	0.88	0.084	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5	4.4	0.041	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.1	2.2	0.49	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11000	8.8	0.77	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	15.7	0.88	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	43300	440	4.5	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	361	1.3	0.035	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.012 B	0.035	0.0078	mg/kg	1	03/18/14	03/18/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	9.0	3.5	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	730	440	7.6	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	923	440	2.9	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.34 B	0.88	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	19.1	0.88	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	29.7	1.8	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16882
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22685

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL5-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-4 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 91.4
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.4		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.9		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> AL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-4A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.25 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0040 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.021 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.0			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.015 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0073 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-4B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.059		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.29 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0034 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.097		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.032 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	125		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.082		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.6		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00019 B		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.39		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> AL5-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-5	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28782.D	1	03/18/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.38 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	17.1	10	2.9	ug/kg	
71-43-2	Benzene	3.2	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.62	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.79	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.59	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.44	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	2.7	2.1	0.72	ug/kg	
591-78-6	2-Hexanone	ND	10	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	2.5	2.1	0.55	ug/kg	
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	7.2	5.2	0.21	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AL5-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-5	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.60	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.94	ug/kg	
1330-20-7	Xylene (total)	6.4	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		70-130%
2037-26-5	Toluene-D8	82%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	35	ug/kg	JN
109-66-0	Pentane	2.42	22	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	7.1	ug/kg	JN
110-54-3	Hexane	4.25	12	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	5.7	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	3.6	ug/kg	JN
822-50-4	Cyclopentane, 1,2-dimethyl-, trans-	7.34	2.5	ug/kg	JN
142-82-5	Heptane	7.54	7.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	13	ug/kg	JN
583-57-3	Cyclohexane, 1,2-dimethyl-	9.93	2.2	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.53	3	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.61	2.3	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	4.4	ug/kg	JN
	Total TIC, Volatile		120.5	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL5-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-5	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18105.D	1	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	AL5-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-5	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	80.3	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	92%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> AL5-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-5 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.5
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6300	ug/kg	JN
	Total TIC, Semi-Volatile		6300	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.13  
4

## Report of Analysis

<b>Client Sample ID:</b> AL5-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-5	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.0	0.90	0.19	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	38.9	4.5	0.065	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.31 B	0.36	0.021	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.054 B	0.36	0.038	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	52400	450	5.7	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	9.6	0.90	0.086	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.0	4.5	0.042	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.7	2.3	0.50	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13300	9.0	0.78	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	7.8	0.90	0.15	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	28400	450	4.6	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	419	1.4	0.036	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0081 U	0.037	0.0081	mg/kg	1	03/18/14	03/19/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	13.2	3.6	0.040	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	737	450	7.7	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1740	450	3.0	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.19 B	0.90	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	22.2	0.90	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	33.2	1.8	0.15	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

(1) Instrument QC Batch: MA16859

(2) Instrument QC Batch: MA16883

(3) Prep QC Batch: MP22656

(4) Prep QC Batch: MP22686

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL5-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-5	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.5		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.4		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.13  
**4**

## Report of Analysis

<b>Client Sample ID:</b> AL5-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-5A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.5
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0039 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.37 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0014 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0028 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.056 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.5			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0057 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0076 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)                      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> AL5-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-5B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.060		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.34 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0029 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.078		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.035 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	118		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.063		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.3		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.10		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.44		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.15  
4

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-14	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28791.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2 <sup>a</sup>	V28808.D	1	03/19/14	AMY	n/a	n/a	MSV1080

Run #	Initial Weight	Final Volume
Run #1	5.22 g	5.0 ml
Run #2	4.44 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	76.3	11	3.0	ug/kg	
71-43-2	Benzene	3.3	0.53	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	14.0	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.3	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.81	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	2.1	2.1	0.74	ug/kg	
591-78-6	2-Hexanone	ND	11	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.3	0.58	ug/kg	
75-09-2	Methylene chloride	3.0	2.1	0.57	ug/kg	
100-42-5	Styrene	ND	5.3	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	6.3	5.3	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.40  
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## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-14		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.97	ug/kg	
1330-20-7	Xylene (total)	6.4	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	88%	70-130%
2037-26-5	Toluene-D8	71%	72%	70-130%
460-00-4	4-Bromofluorobenzene	128%	127%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	35	ug/kg	JN
109-66-0	Pentane	2.41	20	ug/kg	JN
287-23-0	Cyclobutane	3.82	5	ug/kg	JN
110-54-3	Hexane	4.22	7.3	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	4.8	ug/kg	JN
142-82-5	Heptane	7.53	3.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	6.6	ug/kg	JN
98-82-8	Benzene, (1-methylethyl)-	12.53	3.5	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	5.1	ug/kg	JN
7642-15-1	4-Octene, (Z)-	13.43	2.5	ug/kg	JN
	Total TIC, Volatile		93	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.40  
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## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-14	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18114.D	5	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	79	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	68	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-14	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	65	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	85.2	550	75	ug/kg	J
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	69	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	ND	550	74	ug/kg	
129-00-0	Pyrene	72.6	550	64	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	57%		30-130%
4165-62-2	Phenol-d5	55%		30-130%
118-79-6	2,4,6-Tribromophenol	63%		30-130%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	70%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	4600	ug/kg	JN
	Total TIC, Semi-Volatile		4600	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-14	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.5	0.88	0.18	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.3	4.4	0.064	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.17 B	0.35	0.021	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	129000	4400	56	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.7	0.88	0.084	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.2 B	4.4	0.042	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	10.8	2.2	0.49	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	8440	8.8	0.77	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	23.7	0.88	0.15	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	71000	440	4.5	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	360	1.3	0.035	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0078 U	0.035	0.0078	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	8.9	3.5	0.039	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	622	440	7.6	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1320	440	2.9	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.24 B	0.88	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.1	0.88	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	28.7	1.8	0.14	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-14 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.7		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-14A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0041 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.62	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0019 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.021 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.12			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0019 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.2			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.021 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.035 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-14B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.029		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.31 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0024 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.072		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.029 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.093		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	75.5		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00011 B		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.083		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.31		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.42  
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## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28792.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2 <sup>a</sup>	V28809.D	1	03/19/14	AMY	n/a	n/a	MSV1080

Run #	Initial Weight	Final Volume
Run #1	5.47 g	5.0 ml
Run #2	4.84 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	67.8	10	2.8	ug/kg	
71-43-2	Benzene	3.0	0.51	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	10.5	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.1	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.77	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.27	ug/kg	
100-41-4	Ethylbenzene	2.0	2.0	0.70	ug/kg	
591-78-6	2-Hexanone	ND	10	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.55	ug/kg	
75-09-2	Methylene chloride	2.9	2.0	0.54	ug/kg	
100-42-5	Styrene	ND	5.1	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	6.0	5.1	0.21	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	5.5	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%	87%	70-130%
2037-26-5	Toluene-D8	73%	74%	70-130%
460-00-4	4-Bromofluorobenzene	123%	123%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	32	ug/kg	JN
109-66-0	Pentane	2.42	22	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.83	4.9	ug/kg	JN
110-54-3	Hexane	4.23	8.2	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	5.30	5.1	ug/kg	JN
142-82-5	Heptane	7.53	3.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	7.3	ug/kg	JN
66-25-1	Hexanal	10.46	2.3	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.53	2.7	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.61	2	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	4.5	ug/kg	JN
	Total TIC, Volatile		94.6	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18115.D	5	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	78	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	72	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	77	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	540	73	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	ND	540	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	58	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	540	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	540	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	540	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	540	64	ug/kg	
218-01-9	Chrysene	ND	540	67	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	83	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	98	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	83	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	72	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	65	ug/kg	
132-64-9	Dibenzofuran	ND	540	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	68	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	152	540	74	ug/kg	J
86-73-7	Fluorene	ND	540	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	79	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	60	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	540	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	78	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	540	74	ug/kg	
129-00-0	Pyrene	115	540	64	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		30-130%
4165-62-2	Phenol-d5	51%		30-130%
118-79-6	2,4,6-Tribromophenol	57%		30-130%
4165-60-0	Nitrobenzene-d5	55%		30-130%
321-60-8	2-Fluorobiphenyl	60%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28737-15 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	70%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	4400	ug/kg	JN
	Total TIC, Semi-Volatile		4400	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4

# Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.5	0.88	0.18	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	38.3	4.4	0.064	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.23 B	0.35	0.021	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.088 B	0.35	0.037	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	84700	4400	55	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.8	0.88	0.084	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5	4.4	0.041	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.1	2.2	0.49	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10600	8.8	0.77	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	27.4	0.88	0.15	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	45200	440	4.5	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	338	1.3	0.035	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.036	0.0079	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.9	3.5	0.039	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	708	440	7.5	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1520	440	2.9	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.25 B	0.88	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	19.2	0.88	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	35.7	1.8	0.14	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28737-15 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.1
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.1		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	7.9		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.43  
4

# Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-15A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0050 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.53	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.021 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.092 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.8			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.022 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0051 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.056 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-15B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.027		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.32 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0021 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.064		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.027 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.088		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	69.9		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.96		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.076		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.28		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.45  
4





FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28737</b>

Client / Reporting Information		Project Information					Requested Analysis (see TEST CODE sheet)												Matrix Codes												
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-018 Mtkeny County</b>																	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank												
Street Address <b>750 E. Burke Ct Ste 500</b>		Street																													
City State Zip <b>Norron Hills IL 60061</b>		City: _____ Company Name																													
Project Contact <b>S. Babasakumar</b>		Project#																													
Phone # Fax # <b>847-918-4018 -4055</b>		Client PO#																													
Sampler(s) Name(s) <b>T. Walters</b>		Project Manager																													
		Attention: _____ PO#																													
Accutest Sample #	Field ID / Point of Collection	MECH/DI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY													
			Date	Time	Sampled by			PIC	NR01	NR03	FBZ04	NONE	DI Water	ME04	ENCORE	Blank															
13	RPI-1 (0.5-1.5) - 030614		3-6-14	0930	TW	SO	3													X	X	X	X	X							
14	RPI-2 (0.5-1.5) - 030614			0940																											
15	RPI-2 (0.5-1.5) - 030614D			0940																											
16	WT-1 (0.5-1.5) - 030614			0955																											
17	WT-2 (0.5-1.5) - 030614			1005																											
18	WT-3 (0.5-1.5) - 030614			1015																											
19	WT-4 (0.5-1.5) - 030614			1025																											
20	WT-5 (0.5-1.5) - 030614		3-6-14	1035	TW	SO	3														X	X	X	X	X						
<b>7.6.2014</b>																															
<b>Turnaround Time ( Business days)</b> <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>															Approved By (Accutest PM): / Date: _____					<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>										Comments / Special Instructions	
<b>Sample Custody must be documented below each time samples change possession, including courier delivery.</b>																															
Relinquished by Sampler: <b>1 Tami Wally</b>			Date Time: <b>3-6-14/1500</b>			Received By: <b>[Signature]</b>			Date Time: <b>3:04</b>			Relinquished By: <b>FEDEX</b>			Date Time: <b>3-7-14</b>			Received By: <b>[Signature]</b>													
Relinquished by Sampler: <b>3</b>			Date Time: _____			Received By: <b>3</b>			Date Time: _____			Relinquished By: _____			Date Time: _____			Received By: _____													
Relinquished by: <b>5</b>			Date Time: _____			Received By: _____			Date Time: _____			Relinquished By: _____			Date Time: _____			Received By: _____													
			Custody Seal #			<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not intact <input type="checkbox"/>			On Ice			Cooler Temp.																			

5.1 5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

900 W. South Street

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.312403195 Longitude: -88.472743152  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD  
 Latitude: 42.312403195 Longitude: -88.472743152

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS EP-1, EP-3, EP-4, EP-5, EP-6, EP-7, EP-8, AND EP-9 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-57. SEE FIGURE 3-11 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28687 AND MC28736

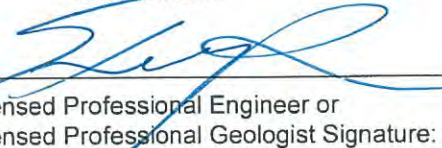
**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



**Summary Table of ISGS Site No. 2792-57**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	EP-1(0.5-1.5)-030414	EP-3(0.5-1.5)-030414	EP-4(0.5-1.5)-030414	EP-4(0.5-1.5)-030414D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/4/2014	
Location ID	EP-1	EP-3	EP-4	EP-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.9	8.6	8.5	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Benzene	1.6	0.9	1.4	1.5	30
Carbon disulfide	ND	0.76 J	ND	ND	9000
Ethylbenzene	0.9 J	ND	ND	ND	13000
Methylene chloride	1.4 J	1.4 J	1.2 J	1.4 J	20
Toluene	3.2 J	1.2 J	2.4 J	2.5 J	12000
Xylene (Total)	2.3	0.75 J	1.6 J	1.7 J	5600
<b>SVOCs (ug/kg)</b>					
Benzo(a)anthracene	ND	ND	ND	ND	900 / 1100 / 1800
Benzo(a)pyrene	ND	ND	ND	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	ND	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	ND	ND	ND	2300000
Benzo(k)fluoranthene	ND	ND	ND	ND	9000
bis(2-Ethylhexyl)phthalate	ND	ND	ND	ND	46000
Chrysene	ND	ND	ND	ND	88000
Fluoranthene	ND	ND	ND	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	900 / 900 / 1600
Phenanthrene	ND	ND	ND	ND	210000
Pyrene	ND	ND	ND	ND	2300000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	6.4	5.5	3.9	4.9	11.3 / 13
Barium, Total	36.7	56.2	21.1	28.9	1500
Beryllium, Total	0.26 J	0.35 J	0.19 J	0.2 J	22
Cadmium, Total	0.082 J	0.073 J	ND	0.053 J	5.2
Calcium, Total	73500	39800	86000	98000	---
Chromium, Total	11.7 J	12.5 J	8.4 J	11.6 J	21
Cobalt, Total	6.7	6.8	4.4	4.6	20
Copper, Total	18.7	12.6	13	12.9	2900
Iron, Total	19100	13400	10400	10700	15000 / 15900
Lead, Total	73.1	11.5	10 J	21.6 J	107
Magnesium, Total	30400	20500	41500	48900	325000
Manganese, Total	378 J	500 J	288 J	337 J	630 / 636
Mercury, Total	0.016 J	0.0091 J	0.012 J	0.013 J	0.89
Nickel, Total	17.8	11.7	10.7	11	100
Potassium, Total	624	731	680	673	---
Silver, Total	ND	ND	ND	ND	4.4
Sodium, Total	2350	3020	1470	1960	---
Thallium, Total	ND	ND	ND	ND	2.6
Vanadium, Total	24	24.7	17.7	18	550
Zinc, Total	45 J	36.2 J	29.9 J	32 J	5100

**Summary Table of ISGS Site No. 2792-57**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	EP-1(0.5-1.5)-030414	EP-3(0.5-1.5)-030414	EP-4(0.5-1.5)-030414	EP-4(0.5-1.5)-030414D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/4/2014	
Location ID	EP-1	EP-3	EP-4	EP-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	ND	0.0042 J	ND	0.0029 J	0.05
Barium, TCLP	0.46 J	0.52	0.36 J	0.35 J	2
Cadmium, TCLP	0.0009 J	0.0011 J	0.0016 J	0.0017 J	0.005
Chromium, TCLP	0.0019 J	ND	0.0027 J	0.0015 J	0.1
Cobalt, TCLP	0.0039 J	0.012 J	0.0097 J	0.012 J	1
Copper, TCLP	0.0077 J	0.0097 J	0.0097 J	0.0084 J	0.65
Iron, TCLP	ND	0.04 J	ND	ND	5
Lead, TCLP	ND	0.002 J	0.0034 J	0.0049 J	0.0075
Manganese, TCLP	2	4.4	3.1	3.1	0.15
Nickel, TCLP	0.022 J	0.02 J	0.02 J	0.022 J	0.1
Selenium, TCLP	0.0085 J	0.0099 J	0.0096 J	0.01 J	0.05
Silver, TCLP	ND	ND	ND	ND	0.05
Zinc, TCLP	0.013 J	0.011 J	0.017 J	0.014 J	5
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.077	0.057	0.045	0.05	0.05
Barium, SPLP	0.67	0.57	0.3 J	0.35 J	2
Beryllium, SPLP	0.0055	0.0042	0.0023 J	0.0026 J	0.004
Cadmium, SPLP	0.0022 J	0.0017 J	0.0014 J	0.0014 J	0.005
Chromium, SPLP	0.17	0.14	0.085	0.093	0.1
Cobalt, SPLP	0.041 J	0.055	0.03 J	0.036 J	1
Copper, SPLP	0.21	0.15	0.13	0.15	0.65
Iron, SPLP	185 J	144 J	93.7 J	106 J	5
Lead, SPLP	0.12	0.1	0.15	0.16	0.0075
Manganese, SPLP	2.2	3.1	1.3	1.5	0.15
Mercury, SPLP	0.00044	0.00026	0.00012 J	0.00015 J	0.002
Nickel, SPLP	0.16	0.13	0.089	0.1	0.1
Selenium, SPLP	0.0091 J	0.0081 J	ND	0.0061 J	0.05
Zinc, SPLP	0.55 J	0.39 J	0.33 J	0.37 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

**Summary Table of ISGS Site No. 2792-57**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	EP-5(0.5-1.5)-030414	EP-6(0.5-1.5)-030414	EP-7(0.5-1.5)-030414	EP-8(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/6/2014	
Location ID	EP-5	EP-6	EP-7	EP-8	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.6	8.6	8.5	8.3	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Benzene	1.5	1.6	ND	1.4 J	30
Carbon disulfide	ND	ND	ND	0.41 J	9000
Ethylbenzene	ND	ND	ND	0.79 J	13000
Methylene chloride	1.5 J	1.1 J	ND	1.3 J	20
Toluene	2.6 J	2.8 J	ND	2.6 J	12000
Xylene (Total)	1.7 J	1.7 J	ND	1.9 J	5600
<b>SVOCs (ug/kg)</b>					
Benzo(a)anthracene	21.7 J	ND	ND	30.1 J	900 / 1100 / 1800
Benzo(a)pyrene	22.7 J	ND	ND	28.2 J	90 / 1300 / 2100
Benzo(b)fluoranthene	20.9 J	ND	ND	41.5 J	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	ND	ND	24.6 J	2300000
Benzo(k)fluoranthene	19.6 J	ND	ND	ND	9000
bis(2-Ethylhexyl)phthalate	19.2 J	14.4 J	ND	ND	46000
Chrysene	23.1 J	ND	ND	23.4 J	88000
Fluoranthene	27.8 J	ND	ND	55.6 J	3100000
Indeno(1,2,3-cd)pyrene	15.5 J	ND	ND	19.6 J	900 / 900 / 1600
Phenanthrene	ND	ND	75 J	ND	210000
Pyrene	27.5 J	ND	ND	48.3 J	2300000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	3.5	5.5	4.6	4.8	11.3 / 13
Barium, Total	24.2	23.9	27.5	28.7	1500
Beryllium, Total	0.14 J	0.19 J	0.19 J	0.25 J	22
Cadmium, Total	0.33 J	0.095 J	0.11 J	0.046 J	5.2
Calcium, Total	114000	104000	96400	85100	---
Chromium, Total	17.6	12.7	9.5	9.3	21
Cobalt, Total	3.5 J	4.2 J	4.4 J	4.5 J	20
Copper, Total	34.2	13.9	13.8	12.2	2900
Iron, Total	12000	10400	10600	12800	15000 / 15900
Lead, Total	106	62.6	43.6	22.7	107
Magnesium, Total	60500	50800	47900	39600	325000
Manganese, Total	270	352	349	367	630 / 636
Mercury, Total	0.0092 J	0.012 J	0.011 J	0.015 J	0.89
Nickel, Total	8.9	10.1	10.5	11.8	100
Potassium, Total	614	669	643	745	---
Silver, Total	ND	ND	ND	0.16 J	4.4
Sodium, Total	2080	2530	1510	2330	---
Thallium, Total	ND	ND	ND	0.67 J	2.6
Vanadium, Total	19.5	16.1	15.4	21.4	550
Zinc, Total	45.4 J	39.8 J	37.1 J	34.9 J	5100

**Summary Table of ISGS Site No. 2792-57**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	EP-5(0.5-1.5)-030414	EP-6(0.5-1.5)-030414	EP-7(0.5-1.5)-030414	EP-8(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/6/2014	
Location ID	EP-5	EP-6	EP-7	EP-8	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	ND	ND	0.0049 J	0.0031 J	0.05
Barium, TCLP	0.29 J	0.44 J	0.46 J	0.44 J	2
Cadmium, TCLP	0.002 J	0.0015 J	0.0019 J	0.0021 J	0.005
Chromium, TCLP	0.0014 J	ND	ND	ND	0.1
Cobalt, TCLP	0.013 J	0.016 J	0.014 J	0.015 J	1
Copper, TCLP	0.01 J	0.008 J	0.0091 J	0.011 J	0.65
Iron, TCLP	ND	0.03 J	0.17	0.42	5
Lead, TCLP	0.0081 J	ND	0.021	0.0027 J	0.0075
Manganese, TCLP	2.1	4.6	4.3	5.3	0.15
Nickel, TCLP	0.02 J	0.016 J	0.03 J	0.025 J	0.1
Selenium, TCLP	0.01 J	0.0088 J	0.011 J	0.005 J	0.05
Silver, TCLP	ND	ND	ND	0.001 J	0.05
Zinc, TCLP	0.03 J	0.013 J	0.049 J	0.033 J	5
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.019	0.033	0.018	0.044	0.05
Barium, SPLP	0.16 J	0.26 J	0.16 J	0.36 J	2
Beryllium, SPLP	0.0012 J	0.0021 J	0.0012 J	0.0024 J	0.004
Cadmium, SPLP	0.001 J	0.0011 J	0.001 J	0.0008 J	0.005
Chromium, SPLP	0.055	0.073	0.041	0.072	0.1
Cobalt, SPLP	0.014 J	0.029 J	0.018 J	0.038 J	1
Copper, SPLP	0.071	0.11	0.077	0.16	0.65
Iron, SPLP	42.9 J	75.3 J	43.5 J	101	5
Lead, SPLP	0.21	0.16	0.2	0.16	0.0075
Manganese, SPLP	0.45	0.99	0.62	1.5	0.15
Mercury, SPLP	ND	ND	ND	0.00011 J	0.002
Nickel, SPLP	0.043	0.079	0.043	0.1	0.1
Selenium, SPLP	ND	ND	ND	ND	0.05
Zinc, SPLP	0.24 J	0.29 J	0.19 J	0.37 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



**Summary Table of ISGS Site No. 2792-57**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	EP-9(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	
Location ID	EP-9	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.2	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	2.4	30
Carbon disulfide	ND	9000
Ethylbenzene	1.2 J	13000
Methylene chloride	2 J	20
Toluene	4.1 J	12000
Xylene (Total)	2.9	5600
<b>SVOCs (ug/kg)</b>		
Benzo(a)anthracene	ND	900 / 1100 / 1800
Benzo(a)pyrene	24.1 J	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	51.7 J	2300000
Benzo(k)fluoranthene	ND	9000
bis(2-Ethylhexyl)phthalate	22.8 J	46000
Chrysene	ND	88000
Fluoranthene	ND	3100000
Indeno(1,2,3-cd)pyrene	27.6 J	900 / 900 / 1600
Phenanthrene	ND	210000
Pyrene	17.1 J	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	4.9	11.3 / 13
Barium, Total	25.4	1500
Beryllium, Total	0.24 J	22
Cadmium, Total	ND	5.2
Calcium, Total	71200 J	---
Chromium, Total	8.6	21
Cobalt, Total	4.3 J	20
Copper, Total	12.2	2900
Iron, Total	12300 J	15000 / 15900
Lead, Total	11	107
Magnesium, Total	35200 J	325000
Manganese, Total	354 J	630 / 636
Mercury, Total	0.013 J	0.89
Nickel, Total	15.2	100
Potassium, Total	726	---
Silver, Total	0.16 J	4.4
Sodium, Total	2700	---
Thallium, Total	0.78 J	2.6
Vanadium, Total	21	550
Zinc, Total	31.2 J	5100

**Summary Table of ISGS Site No. 2792-57**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	EP-9(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	
Location ID	EP-9	
Depth	0.5 - 1.5	
Parameter		
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	ND	0.05
Barium, TCLP	0.37 J	2
Cadmium, TCLP	0.0018 J	0.005
Chromium, TCLP	ND	0.1
Cobalt, TCLP	0.016 J	1
Copper, TCLP	ND	0.65
Iron, TCLP	0.45	5
Lead, TCLP	ND	0.0075
Manganese, TCLP	5.8	0.15
Nickel, TCLP	0.023 J	0.1
Selenium, TCLP	0.0054 J	0.05
Silver, TCLP	ND	0.05
Zinc, TCLP	0.035 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.039	0.05
Barium, SPLP	0.28 J	2
Beryllium, SPLP	0.002 J	0.004
Cadmium, SPLP	0.0005 J	0.005
Chromium, SPLP	0.061	0.1
Cobalt, SPLP	0.032 J	1
Copper, SPLP	0.13	0.65
Iron, SPLP	87.9	5
Lead, SPLP	0.11	0.0075
Manganese, SPLP	1.2	0.15
Mercury, SPLP	0.00012 J	0.002
Nickel, SPLP	0.088	0.1
Selenium, SPLP	ND	0.05
Zinc, SPLP	0.3 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28687

Sampling Date: 03/04/14

Report to:

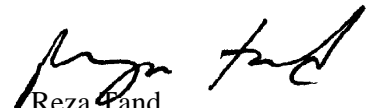
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **279**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> EP-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-9	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63747.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.46 g	5.0 ml
Run #2		

### VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/kg	
71-43-2	Benzene	1.6	0.50	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.76	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.45	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.26	ug/kg	
100-41-4	Ethylbenzene	0.90	2.0	0.69	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.76	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.54	ug/kg	
75-09-2	Methylene chloride	1.4	2.0	0.53	ug/kg	J
100-42-5	Styrene	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	3.2	5.0	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-1(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-9		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 91.0
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	2.3	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.10	12	ug/kg	JN
109-66-0	Pentane	6.49	9.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.8	ug/kg	JN
	Total TIC, Volatile		28.5	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
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J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b>	EP-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-9	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71684.D	5	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	79	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	550	73	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	550	64	ug/kg	
218-01-9	Chrysene	ND	550	68	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	83	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	98	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	EP-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-9	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	65	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	68	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	ND	550	75	ug/kg	
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	79	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	60	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	78	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	550	74	ug/kg	
129-00-0	Pyrene	ND	550	64	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.0
--	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5500	ug/kg	JN
	Total TIC, Semi-Volatile		5500	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4



# Report of Analysis

<b>Client Sample ID:</b> EP-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.4	0.91	0.19	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	36.7	4.5	0.066	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.26 B	0.36	0.022	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.082 B	0.36	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	73500	4500	57	mg/kg	10	03/07/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.7	0.91	0.086	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.7	4.5	0.043	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	18.7	2.3	0.50	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	19100	9.1	0.79	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	73.1	0.91	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	30400	450	4.6	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	378	1.4	0.036	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.016 B	0.035	0.0078	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	17.8	3.6	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	624	450	7.8	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2350	450	3.0	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.91	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	24.0	0.91	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	45.0	1.8	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.25  
**4**

## Report of Analysis

<b>Client Sample ID:</b> EP-1(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-9		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL		

4.25  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.9		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> EP-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-9A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.0
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.46 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0019 B	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0039 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0077 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.0			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.022 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0085 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.26  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-9B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.077		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.67		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0055		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0022 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.17		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.041 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.21		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	185		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.2		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00044		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.16		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0091 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.55		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.27  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-11	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63749.D	1	03/12/14	KD	n/a	n/a	MSM2235

Run #1	Initial Weight	Final Volume
Run #2	4.97 g	5.0 ml

### VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.1	ug/kg	
71-43-2	Benzene	0.90	0.56	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.67	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	0.76	5.6	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.6	0.84	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.6	0.63	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.46	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.77	ug/kg	
591-78-6	2-Hexanone	ND	11	0.84	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.6	0.60	ug/kg	
75-09-2	Methylene chloride	1.4	2.2	0.59	ug/kg	J
100-42-5	Styrene	ND	5.6	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.35	ug/kg	
108-88-3	Toluene	1.2	5.6	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.31  
4

## Report of Analysis

<b>Client Sample ID:</b>	EP-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-11	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.2
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.64	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	0.75	2.2	0.24	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	19	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	8.7	ug/kg	JN
109-66-0	Pentane	6.48	7.5	ug/kg	JN
	Total TIC, Volatile		35.2	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	EP-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-11	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71686.D	1	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	68	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	38	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	EP-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-11	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	78%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> EP-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-11 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.2
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.31  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-11	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.5	0.91	0.19	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	56.2	4.5	0.066	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.35 B	0.36	0.022	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.073 B	0.36	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	39800	450	5.7	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	12.5	0.91	0.086	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.8	4.5	0.043	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	12.6	2.3	0.50	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13400	9.1	0.79	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	11.5	0.91	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	20500	450	4.7	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	500	1.4	0.036	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0091 B	0.033	0.0073	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	11.7	3.6	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	731	450	7.8	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	3020	450	3.0	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.12 U	0.91	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	24.7	0.91	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	36.2	1.8	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16855
- (3) Prep QC Batch: MP22610
- (4) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> EP-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-11	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.31  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.2		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.6		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> EP-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-11A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.2
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0042 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.52	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.012 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0097 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.040 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0020 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.4			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.020 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0099 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.011 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.32  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-11B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.2
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.057		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.57		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0017 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.055		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	144		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.10		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.1		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00026		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.13		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0081 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.39		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.33  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-12	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63750.D	1	03/12/14	KD	n/a	n/a	MSM2235

Run #1	Initial Weight	Final Volume
Run #2	4.89 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.2	ug/kg	
71-43-2	Benzene	1.4	0.56	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.6	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.6	0.85	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.6	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.78	ug/kg	
591-78-6	2-Hexanone	ND	11	0.85	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.6	0.61	ug/kg	
75-09-2	Methylene chloride	1.2	2.3	0.60	ug/kg	J
100-42-5	Styrene	ND	5.6	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.35	ug/kg	
108-88-3	Toluene	2.4	5.6	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.24	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-12		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.9
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.65	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	1.6	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
109-66-0	Pentane	6.49	10	ug/kg	JN
2516-47-4	(Aminomethyl)cyclopropane	7.84	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.4	ug/kg	JN
	Total TIC, Volatile		24	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-12		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.9
<b>Method:</b> SW846 8270D SW846 3546		
<b>Project:</b> IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71687.D	5	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	78	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	72	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	77	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	540	72	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	ND	540	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	58	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	540	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	540	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	540	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	68	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	73	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	540	64	ug/kg	
218-01-9	Chrysene	ND	540	67	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	82	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	97	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	83	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4



# Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-12	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	72	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	65	ug/kg	
132-64-9	Dibenzofuran	ND	540	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	68	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	78	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	ND	540	74	ug/kg	
86-73-7	Fluorene	ND	540	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	60	ug/kg	
78-59-1	Isophorone	ND	1400	62	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	540	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	540	73	ug/kg	
129-00-0	Pyrene	ND	540	63	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	55%		30-130%
118-79-6	2,4,6-Tribromophenol	63%		30-130%
4165-60-0	Nitrobenzene-d5	49%		30-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-12 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.9
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	80%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	4800	ug/kg	JN
	Total TIC, Semi-Volatile		4800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.85	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.9	0.85	0.18	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	21.1	4.3	0.062	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.34	0.020	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.036 U	0.34	0.036	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	86000	4300	54	mg/kg	10	03/07/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.4	0.85	0.081	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.4	4.3	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.0	2.1	0.47	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10400	8.5	0.74	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	10	0.85	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	41500	430	4.4	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	288	1.3	0.034	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.012 B	0.033	0.0072	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.7	3.4	0.037	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	680	430	7.3	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.85	0.30	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.43	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1470	430	2.8	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.11 U	0.85	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.7	0.85	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	29.9	1.7	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-12		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.9		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.5		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-12A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.36 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0016 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0027 B	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0097 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0097 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0034 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.020 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0096 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.017 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-12B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.9
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.045		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.30 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0023 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.085		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.030 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	93.7		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.15		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.3		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00012 B		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.089		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.33		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.36  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414D	
<b>Lab Sample ID:</b> MC28687-13	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63751.D	1	03/12/14	KD	n/a	n/a	MSM2235

Run #1	Initial Weight	Final Volume
Run #2	4.97 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.2	ug/kg	
71-43-2	Benzene	1.5	0.57	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.86	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.78	ug/kg	
591-78-6	2-Hexanone	ND	11	0.86	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.61	ug/kg	
75-09-2	Methylene chloride	1.4	2.3	0.60	ug/kg	J
100-42-5	Styrene	ND	5.7	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.35	ug/kg	
108-88-3	Toluene	2.5	5.7	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414D	
<b>Lab Sample ID:</b> MC28687-13	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.65	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	1.7	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	15	ug/kg	JN
109-66-0	Pentane	6.49	12	ug/kg	JN
760-20-3	1-Pentene, 3-methyl-	9.91	6.2	ug/kg	JN
	Unknown	11.18	7.1	ug/kg	JN
	Total TIC, Volatile		40.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	EP-4(0.5-1.5)-030414D	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-13	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71688.D	5	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	68	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	670	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	72	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	67	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	66	ug/kg	
83-32-9	Acenaphthene	ND	540	72	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	ND	540	69	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	58	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	540	67	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	540	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	540	81	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	68	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	73	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	67	ug/kg	
86-74-8	Carbazole	ND	540	63	ug/kg	
218-01-9	Chrysene	ND	540	67	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	63	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	82	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	97	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	82	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	EP-4(0.5-1.5)-030414D	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-13	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	77	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	67	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	64	ug/kg	
132-64-9	Dibenzofuran	ND	540	74	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	67	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	78	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	50	ug/kg	
206-44-0	Fluoranthene	ND	540	74	ug/kg	
86-73-7	Fluorene	ND	540	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	84	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	670	ug/kg	
67-72-1	Hexachloroethane	ND	1300	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	59	ug/kg	
78-59-1	Isophorone	ND	1300	62	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	68	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	67	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	67	ug/kg	
91-20-3	Naphthalene	ND	540	86	ug/kg	
98-95-3	Nitrobenzene	ND	1300	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	81	ug/kg	
85-01-8	Phenanthrene	ND	540	73	ug/kg	
129-00-0	Pyrene	ND	540	63	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	74	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	61%		30-130%
118-79-6	2,4,6-Tribromophenol	61%		30-130%
4165-60-0	Nitrobenzene-d5	52%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414D <b>Lab Sample ID:</b> MC28687-13 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.0
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	79%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5000	ug/kg	JN
	Total TIC, Semi-Volatile		5000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.37  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.9	0.88	0.18	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	28.9	4.4	0.064	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.20 B	0.35	0.021	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.053 B	0.35	0.037	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	98000	4400	56	mg/kg	10	03/07/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.6	0.88	0.084	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.6	4.4	0.042	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	12.9	2.2	0.49	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10700	8.8	0.77	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	21.6	0.88	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	48900	440	4.5	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	337	1.3	0.035	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.013 B	0.034	0.0075	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	11.0	3.5	0.039	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	673	440	7.6	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1960	440	2.9	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.88	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.0	0.88	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	32.0	1.8	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414D <b>Lab Sample ID:</b> MC28687-13A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.0
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.35 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0015 B	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.012 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0084 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0049 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.022 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.014 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.38  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-4(0.5-1.5)-030414D	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-13B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.050		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.35 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0026 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.093		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.036 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	106		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.5		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00015 B		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.10		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0061 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.39  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-14	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 91.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63752.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.22 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	1.5	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.63	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.79	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.59	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.44	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.44	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.44	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.72	ug/kg	
591-78-6	2-Hexanone	ND	10	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	1.5	2.1	0.56	ug/kg	J
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	2.6	5.2	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.40  
 4



## Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.60	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.95	ug/kg	
1330-20-7	Xylene (total)	1.7	2.1	0.23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	23	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	13	ug/kg	JN
109-66-0	Pentane	6.49	11	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.1	ug/kg	JN
	Total TIC, Volatile		53.1	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-14	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71689.D	1	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	86	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	66	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	99	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	21.7	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	22.7	110	11	ug/kg	J
205-99-2	Benzo(b)fluoranthene	20.9	110	13	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	19.6	110	16	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	12	ug/kg	
218-01-9	Chrysene	23.1	110	13	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
**4**

# Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-14	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 91.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	19.2	260	9.8	ug/kg	J
206-44-0	Fluoranthene	27.8	110	14	ug/kg	J
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	15.5	110	12	ug/kg	J
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	13	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	27.5	110	12	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	260	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	81%		30-130%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.5
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	5300	ug/kg	JN
	Total TIC, Semi-Volatile		5300	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
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# Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.5	0.89	0.18	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	24.2	4.4	0.065	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.14 B	0.36	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.33 B	0.36	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	114000	4400	56	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	17.6	0.89	0.084	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.5 B	4.4	0.042	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	34.2	2.2	0.49	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12000	8.9	0.77	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	106	0.89	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	60500	440	4.5	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	270	1.3	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0092 B	0.034	0.0074	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	8.9	3.6	0.039	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	614	440	7.6	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2080	440	2.9	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.89	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	19.5	0.89	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	45.4	1.8	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.5		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.6		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.40  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-14A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 91.5
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.29 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0020 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 B	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.013 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.010 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0081 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.020 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.030 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> EP-5(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-14B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.019		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.16 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0012 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.055		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.014 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.071		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	42.9		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.21		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.45		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.043		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.24		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.42  
4





## Report of Analysis

<b>Client Sample ID:</b> EP-6(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-15		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 92.8
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	1.7	2.0	0.22	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	12	ug/kg	JN
109-66-0	Pentane	6.48	9.8	ug/kg	JN
110-54-3	Hexane	8.45	5.2	ug/kg	JN
4127-47-3	Cyclopropane, 1,1,2,2-tetramethyl-	11.18	6.9	ug/kg	JN
	Total TIC, Volatile		33.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4

## Report of Analysis

<b>Client Sample ID:</b>	EP-6(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-15	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71690.D	1	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	67	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	530	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	EP-6(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-15	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	14.4	270	9.9	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-6(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-15 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 92.8
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.5	0.95	0.20	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	23.9	4.7	0.069	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.38	0.022	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.095 B	0.38	0.040	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	104000	4700	59	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	12.7	0.95	0.090	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.2 B	4.7	0.044	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.9	2.4	0.52	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10400	9.5	0.82	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	62.6	0.95	0.16	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	50800	470	4.8	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	352	1.4	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.012 B	0.034	0.0074	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.1	3.8	0.041	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	669	470	8.1	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.95	0.33	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2530	470	3.1	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.13 U	0.95	0.13	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	16.1	0.95	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	39.8	1.9	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> EP-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.8		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.6		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.43  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-15A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.44 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.016 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0080 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.030 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.6			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0088 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.44  
4



### Report of Analysis

<b>Client Sample ID:</b> EP-6(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-15B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.033		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.26 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0021 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0011 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.073		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.029 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	75.3		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.99		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.079		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.29		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

4.45  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-7(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-16	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G135599.D	1	03/10/14	JM	n/a	n/a	MSG5214
Run #2							

Run #1	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.3 g	10.0 ml	100 ul
Run #2			

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	590	170	ug/kg	
71-43-2	Benzene	ND	30	20	ug/kg	
75-27-4	Bromodichloromethane	ND	120	12	ug/kg	
75-25-2	Bromoform	ND	120	21	ug/kg	
74-83-9	Bromomethane	ND	120	36	ug/kg	
78-93-3	2-Butanone (MEK)	ND	590	180	ug/kg	
75-15-0	Carbon disulfide	ND	300	7.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	120	13	ug/kg	
108-90-7	Chlorobenzene	ND	120	9.3	ug/kg	
75-00-3	Chloroethane	ND	300	45	ug/kg	
67-66-3	Chloroform	ND	120	10	ug/kg	
74-87-3	Chloromethane	ND	300	33	ug/kg	
124-48-1	Dibromochloromethane	ND	120	19	ug/kg	
75-34-3	1,1-Dichloroethane	ND	120	16	ug/kg	
107-06-2	1,2-Dichloroethane	ND	120	19	ug/kg	
75-35-4	1,1-Dichloroethene	ND	120	24	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	120	27	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	120	25	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	120	25	ug/kg	
78-87-5	1,2-Dichloropropane	ND	120	25	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	120	13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	120	16	ug/kg	
100-41-4	Ethylbenzene	ND	120	41	ug/kg	
591-78-6	2-Hexanone	ND	590	45	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	120	11	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	32	ug/kg	
75-09-2	Methylene chloride	ND	120	31	ug/kg	
100-42-5	Styrene	ND	300	10	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	120	23	ug/kg	
127-18-4	Tetrachloroethene	ND	120	19	ug/kg	
108-88-3	Toluene	ND	300	12	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	120	13	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-7(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	120	34	ug/kg	
79-01-6	Trichloroethene	ND	120	14	ug/kg	
75-01-4	Vinyl chloride	ND	120	54	ug/kg	
1330-20-7	Xylene (total)	ND	120	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
99-87-6	Benzene, 1-methyl-4-(1-methylethyl)-	11.98	820	ug/kg	JN
	Total TIC, Volatile		820	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.46  
4

## Report of Analysis

<b>Client Sample ID:</b>	EP-7(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-16	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71691.D	5	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	79	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	340	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	68	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	EP-7(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-16	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	ND	550	75	ug/kg	
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	75.0	550	74	ug/kg	J
129-00-0	Pyrene	ND	550	64	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	72%		30-130%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-7(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	85%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5800	ug/kg	JN
527-84-4	Benzene, 1-methyl-2-(1-methylethyl)	4.29	3400	ug/kg	JN
6566-19-4	10,18-Bisnorabieta-5,7,9(10),11,13	9.21	2200	ug/kg	JN
	Total TIC, Semi-Volatile		11400	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.46  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-7(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.6	0.90	0.19	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.5	4.5	0.065	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.36	0.021	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.11 B	0.36	0.038	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	96400	4500	56	mg/kg	10	03/10/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.5	0.90	0.085	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.4 B	4.5	0.042	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.8	2.2	0.50	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10600	9.0	0.78	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	43.6	0.90	0.15	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	47900	450	4.6	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	349	1.3	0.036	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.036	0.0079	mg/kg	1	03/13/14	03/14/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.5	3.6	0.039	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	643	450	7.7	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1510	450	3.0	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.12 U	0.90	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.4	0.90	0.12	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	37.1	1.8	0.14	mg/kg	1	03/10/14	03/10/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16856
- (4) Prep QC Batch: MP22621
- (5) Prep QC Batch: MP22652

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> EP-7(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-16	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.4		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.5		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.46  
**4**



## Report of Analysis

<b>Client Sample ID:</b> EP-7(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-16A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.4
---	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0049 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.46 B	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0019 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.014 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0091 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.17			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.021	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.3			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.030 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.011 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.049 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.47  
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## Report of Analysis

<b>Client Sample ID:</b> EP-7(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-16B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.018		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.16 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0012 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.041		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.018 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.077		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	43.5		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.20		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.62		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.043		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.19		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.48  
4

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest Job # <b>MC28687</b>	
<b>Client / Reporting Information</b>		<b>Project Information</b>	
Company Name <b>Western Solutions, Inc.</b>		Project Name <b>DOT-048 McHenry County</b>	
Street Address <b>750 E Dunbar Ct Ste 500</b>		Street	
City State Zip <b>Vernon Hills IL 60061</b>		Billing Information (if different from Report to)	
Project Contact <b>S. Babusukuma</b>		Company Name	
Phone # Fax # <b>847-916-4018</b>		Street Address	
Sampler(s) Name(s) Phone # <b>David Sena 574-261-5413</b>		City State Zip	
Project Manager		Attention: PCR	
Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Accutest Sample # <b>MC28687</b> Field ID / Point of Collection MECH/ID / Vial # Date Time Sampled by Matrix # of bottles Number of preserved bottles HCl NACH NAGS H2SO4 NONE DI Water MECH ENCORE Biomats <b>1 REB-4(0.5-1.5)-030414 3-4-14 9:45 DS So 3</b> <b>2 REB-5(0.5-1.5)-030414 10:00</b> <b>3 REB-1(0.5-1.5)-030414 10:30</b> <b>4 REB-2(0.5-1.5)-030414 10:50</b> <b>5 REB-3(0.5-1.5)-030414 11:00</b> <b>6 VL10-1(0.5-1.5)-030414 11:20</b> <b>7 VL10-2(0.5-1.5)-030414 12:20</b> <b>8 VL10-3(0.5-1.5)-030414 12:45</b> <b>9 EP-1(0.5-1.5)-030414 13:00</b> <b>10 EP-2(0.5-1.5)-030414 13:20</b> <b>11 EP-3(0.5-1.5)-030414 13:30</b> <b>12 EP-4(0.5-1.5)-030414 13:50</b>		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
LAB USE ONLY		VOCs SVOCs Total Metals TCLP/SLRP Metals PH	
<b>Turnaround Time (Business days)</b>		<b>Data Deliverable Information</b>	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary	
Approved By (Accutest PM): / Date:		Comments / Special Instructions	
		<b>Loc 14E, 6F1</b>	
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler:	Date Time:	Received By:	Date Time:
<b>David Sena</b>	<b>3-4-14/15:15</b>	<b>[Signature]</b>	<b>3/5/14 9:30</b>
Relinquished by Sampler:	Date Time:	Received By:	Date Time:
<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>
Relinquished by:	Date Time:	Received By:	Date Time:
<b>5</b>			
Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	On Ice <input type="checkbox"/> Cooler Temp. <input type="checkbox"/>
	<input type="checkbox"/> Not intact		<b>6.9°C</b>

**MC28687: Chain of Custody**

**Page 1 of 3**





03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28736

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **327**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> EP-8(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-1	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 85.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63830.D	1	03/17/14	KD	n/a	n/a	MSM2238

Run #1	Initial Weight	Final Volume
Run #2	6.31 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.2	2.6	ug/kg	
71-43-2	Benzene	1.4	0.46	0.31	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.19	ug/kg	
75-25-2	Bromoform	ND	1.8	0.33	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.56	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.2	2.8	ug/kg	
75-15-0	Carbon disulfide	0.41	4.6	0.12	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.8	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.6	0.70	ug/kg	
67-66-3	Chloroform	ND	1.8	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.6	0.52	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.30	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.38	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.42	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.39	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.39	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.39	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.24	ug/kg	
100-41-4	Ethylbenzene	0.79	1.8	0.64	ug/kg	J
591-78-6	2-Hexanone	ND	9.2	0.70	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.6	0.50	ug/kg	
75-09-2	Methylene chloride	1.3	1.8	0.49	ug/kg	J
100-42-5	Styrene	ND	4.6	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.36	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.29	ug/kg	
108-88-3	Toluene	2.6	4.6	0.19	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.20	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.53	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.84	ug/kg	
1330-20-7	Xylene (total)	1.9	1.8	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.11	40	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	19	ug/kg	JN
109-66-0	Pentane	6.49	22	ug/kg	JN
54125-39-2	trans-2,3-Epoxydecane	7.84	11	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.6	ug/kg	JN
110-54-3	Hexane	8.46	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.8	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.5	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.3	ug/kg	JN
	Total TIC, Volatile		128.2	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b>	EP-8(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-1	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37427.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	94	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	72	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	29	ug/kg	
88-75-5	2-Nitrophenol	ND	580	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	15	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	30.1	120	15	ug/kg	J
50-32-8	Benzo(a)pyrene	28.2	120	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	41.5	120	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	24.6	120	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	120	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	14	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	23.4	120	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	EP-8(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-1	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.0	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	55.6	120	16	ug/kg	J
86-73-7	Fluorene	ND	120	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	19.6	120	13	ug/kg	J
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	14	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	14	ug/kg	
91-20-3	Naphthalene	ND	120	18	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	48.3	120	14	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	83%		30-130%
4165-62-2	Phenol-d5	82%		30-130%
118-79-6	2,4,6-Tribromophenol	92%		30-130%
4165-60-0	Nitrobenzene-d5	82%		30-130%
321-60-8	2-Fluorobiphenyl	88%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	99%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6400	ug/kg	JN
	Total TIC, Semi-Volatile		6400	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> EP-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.8	0.92	0.19	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	28.7	4.6	0.067	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.25 B	0.37	0.022	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.046 B	0.37	0.039	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	85100	4600	58	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	9.3	0.92	0.087	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5 B	4.6	0.043	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	12.2	2.3	0.51	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	12800	9.2	0.80	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	22.7	0.92	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	39600	460	4.7	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	367	1.4	0.037	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.036	0.0080	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	11.8	3.7	0.040	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	745	460	7.9	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.16 B	0.46	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	2330	460	3.0	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.67 B	0.92	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	21.4	0.92	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	34.9	1.8	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16854
- (2) Instrument QC Batch: MA16857
- (3) Instrument QC Batch: MA16859
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22650

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.8		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.3		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-8(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-1A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 85.8
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0031 B	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Barium	0.44 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0021 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.015 B			0.050	0.00040	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Iron	0.42			0.10	0.020	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0027 B	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.3			0.015	0.00081	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.025 B			0.040	0.00057	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0050 B	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 B	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.033 B			0.10	0.00050	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-8(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-1B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.044		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.36 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0024 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.072		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.038 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.16		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	101		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.5		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00011 B		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.10		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.3  
4

## Report of Analysis

<b>Client Sample ID:</b> EP-9(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28736-2	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63831.D	1	03/17/14	KD	n/a	n/a	MSM2238
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.97 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.2	ug/kg	
71-43-2	Benzene	2.4	0.57	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.69	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.87	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	1.2	2.3	0.79	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.87	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.62	ug/kg	
75-09-2	Methylene chloride	2.0	2.3	0.61	ug/kg	J
100-42-5	Styrene	ND	5.7	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	4.1	5.7	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-9(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.66	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	2.9	2.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	57	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	29	ug/kg	JN
109-66-0	Pentane	6.48	29	ug/kg	JN
	Unknown	7.83	16	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7.7	ug/kg	JN
110-54-3	Hexane	8.46	18	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	9.5	ug/kg	JN
110-82-7	Cyclohexane	9.91	9.2	ug/kg	JN
142-82-5	Heptane	10.51	8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	13	ug/kg	JN
	Total TIC, Volatile		196.4	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.4  
4



## Report of Analysis

<b>Client Sample ID:</b>	EP-9(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37428.D	1	03/12/14	KR	03/07/14	OP37099	MSR1382
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	68	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	38	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	24.1	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	51.7	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	EP-9(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28736-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	22.8	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	27.6	110	12	ug/kg	J
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	17.1	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	87%		30-130%
4165-62-2	Phenol-d5	84%		30-130%
118-79-6	2,4,6-Tribromophenol	94%		30-130%
4165-60-0	Nitrobenzene-d5	84%		30-130%
321-60-8	2-Fluorobiphenyl	89%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EP-9(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28736-2 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 87.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	101%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.67	6000	ug/kg JN
	Total TIC, Semi-Volatile		6000	ug/kg J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> EP-9(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.9	0.91	0.19	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Barium	25.4	4.6	0.066	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.24 B	0.37	0.022	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.039 U	0.37	0.039	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Calcium	71200	4600	57	mg/kg	10	03/12/14	03/14/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	8.6	0.91	0.087	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.3 B	4.6	0.043	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Copper	12.2	2.3	0.51	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	12300	9.1	0.79	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	11.0	0.91	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Magnesium	35200	460	4.7	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Manganese	354	1.4	0.037	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.013 B	0.034	0.0074	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>1</sup>	SW846 7471B <sup>5</sup>
Nickel	15.2	3.7	0.040	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Potassium	726	460	7.8	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Silver	0.16 B	0.46	0.11	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Sodium	2700	460	3.0	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Thallium	0.78 B	0.91	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Vanadium	21.0	0.91	0.12	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	31.2	1.8	0.15	mg/kg	1	03/12/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16854
- (2) Instrument QC Batch: MA16857
- (3) Instrument QC Batch: MA16859
- (4) Prep QC Batch: MP22641
- (5) Prep QC Batch: MP22650

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.4  
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## Report of Analysis

<b>Client Sample ID:</b> EP-9(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.6		%	1	03/11/14	BF	SM21 2540 B MOD.
pH	8.2		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.4  
 4

# Report of Analysis

<b>Client Sample ID:</b> EP-9(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-2A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Barium	0.37 B	D005	100	0.50	0.00081	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0018 B	D006	1.0	0.0040	0.00050	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.016 B			0.050	0.00040	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Iron	0.45			0.10	0.020	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.8			0.015	0.00081	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/14/14	03/17/14	SA SW846 7470A <sup>1</sup>
Nickel	0.023 B			0.040	0.00057	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0054 B	D010	1.0	0.025	0.0048	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.035 B			0.10	0.00050	mg/l	1	03/14/14	03/14/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16864
- (2) Instrument QC Batch: MA16872
- (3) Prep QC Batch: MP22664
- (4) Prep QC Batch: MP22668

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

4.5  
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## Report of Analysis

<b>Client Sample ID:</b> EP-9(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28736-2B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.039		0.010	0.0029	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.28 B		0.50	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0020 B		0.0040	0.00025	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.061		0.010	0.0014	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.032 B		0.050	0.00040	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	87.9		0.10	0.020	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.2		0.015	0.00081	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00012 B		0.00020	0.00010	mg/l	1	03/14/14	03/14/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.088		0.040	0.00057	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.30		0.10	0.00050	mg/l	1	03/13/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16861
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22655
- (4) Prep QC Batch: MP22660

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.6  
4

Client / Reporting Information Company Name: <b>Weston Solutions, Inc</b> Street Address: <b>750 E Bunker Ct # 500</b> City/State/Zip: <b>Vernon Hills IL 60061</b> Project Contact: <b>S. Babusurkumar</b> Phone #: <b>947-919-4000</b> Sampler(s) Name(s): <b>David Serra</b> Phone #: <b>574-261-5413</b>				Project Information Project Name: <b>DOT # 049 McHenry County</b> Street: _____ Billing Information (If different from Report to) Company Name: _____ Street Address: _____ City/State/Zip: _____ Attention: _____ PO#: _____				Requested Analysis (see TEST CODE sheet) <div style="text-align: center; font-size: 2em; font-weight: bold;">       VOCs        SVOCs        Total Metals        TCLP / SPLP Metals        pH     </div>				Matrix Codes DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank										
Accutest Sample #	Field ID / Point of Collection	MECH/DI/Val #	Date	Time	Sampled by	Matrix	# of bottles	NICH	NMCH	PHSD	P2004	NONE	D/W/WET	MEOH	ENCONC	Biosafe	VOCs	SVOCs	Total Metals	TCLP / SPLP Metals	pH	LAB USE ONLY
1	EP-8 (0.5-1.5)-030614		3-6-14	7:55	DS	So	3															
2	EP-9 (0.5-1.5)-030614			8:05																		
3	GL-1 (0.5-1.5)-030614			9:20																		
4	GL-2 (0.5-1.5)-030614			9:35																		
5	GL-3 (0.5-1.5)-030614			8:50																		
6	GL-3 (0.5-1.5)-030614			8:50																		
7	KF-1 (0.5-1.5)-030614			9:05																		
8	KF-2 (0.5-1.5)-030614			9:20																		
9	NG-1 (0.5-1.5)-030614			9:30																		
10	RESS-1 (0.5-1.5)-030614			9:45																		
11	RESS-2 (0.5-1.5)-030614			10:05																		
12	RESS-3 (0.5-1.5)-030614			10:15																		
Data Deliverable Information <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>								Approved By (Accutest PM) / Date: _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>				Comments / Special Instructions <div style="text-align: right; font-size: 1.2em;"><i>See ISA, pF2</i></div>						
Sample Custody must be documented below each time samples change possession, including courier delivery.																						
Relinquished by Sampler: <b>David Serra</b> Date Time: <b>3-7-14</b>				Received By: <i>[Signature]</i> Date Time: <b>3-7-14</b>				Relinquished By: <b>F2X</b> Date Time: <b>3-7-14</b>				Received By: <i>[Signature]</i> Date Time: <b>3-7-14</b>										
Relinquished by Sampler: _____ Date Time: _____				Received By: _____ Date Time: _____				Relinquished By: _____ Date Time: _____				Received By: _____ Date Time: _____										
Relinquished by: _____ Date Time: _____				Received By: _____ Date Time: _____				Relinquished by: _____ Date Time: _____				Received By: _____ Date Time: _____										
Relinquished by: _____ Date Time: _____				Received By: _____ Date Time: _____				Relinquished by: _____ Date Time: _____				Received By: _____ Date Time: _____										
Relinquished by: _____ Date Time: _____				Received By: _____ Date Time: _____				Relinquished by: _____ Date Time: _____				Received By: _____ Date Time: _____										
Relinquished by: _____ Date Time: _____				Received By: _____ Date Time: _____				Relinquished by: _____ Date Time: _____				Received By: _____ Date Time: _____										







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

14000 block of US 14 (between Kishwaukee Valley Road and W. South Street)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.312940945 Longitude: -88.472860627

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.312940945 Longitude: -88.472860627

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION VL9-16 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-58. SEE FIGURE 3-11 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28737

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

*Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))*

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

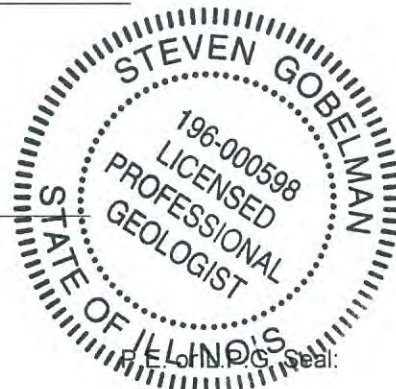
Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-58**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL9-16(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	VL9-16	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.6	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Acetone	20.9 J	25000
Benzene	3.8	30
Carbon disulfide	0.77 J	9000
Ethylbenzene	2.8	13000
Methylene chloride	2.7	20
Toluene	8.2	12000
Xylene (Total)	6.2	5600
<b>SVOCs (ug/kg)</b>		
Anthracene	31.8 J	1.20E+07
Benzo(a)anthracene	154	900 / 1100 / 1800
Benzo(a)pyrene	232	90 / 1300 / 2100
Benzo(b)fluoranthene	278	900 / 1500 / 2100
Benzo(g,h,i)perylene	170	2300000
Benzo(k)fluoranthene	95 J	9000
bis(2-Ethylhexyl)phthalate	25.2 J	46000
Carbazole	18.8 J	600
Chrysene	158	88000
Fluoranthene	225	3100000
Indeno(1,2,3-cd)pyrene	156	900 / 900 / 1600
Phenanthrene	113	210000
Pyrene	213	2300000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	6.9	11.3 / 13
Barium, Total	37.6	1500
Beryllium, Total	0.31 J	22
Cadmium, Total	0.063 J	5.2
Calcium, Total	68400	---
Chromium, Total	11.2 J	21
Cobalt, Total	6.2	20
Copper, Total	17.2	2900
Iron, Total	15100 J	15000 / 15900
Lead, Total	21.8	107
Magnesium, Total	36100	325000
Manganese, Total	495 J	630 / 636
Mercury, Total	0.015 J	0.89
Nickel, Total	13.1	100
Potassium, Total	721	---
Sodium, Total	1960 J	---
Thallium, Total	0.24 J	2.6
Vanadium, Total	27.2	550
Zinc, Total	37.7 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0032 J	0.05
Barium, TCLP	0.41 J	2
Cadmium, TCLP	0.0013 J	0.005
Chromium, TCLP	0.0015 J	0.1
Iron, TCLP	0.028 J	5
Manganese, TCLP	1.3	0.15
Nickel, TCLP	0.013 J	0.1
Selenium, TCLP	0.006 J	0.05
Zinc, TCLP	0.013 J	5

**Summary Table of ISGS Site No. 2792-58**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL9-16(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	
Location ID	VL9-16	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.062	0.05
Barium, SPLP	0.36 J	2
Beryllium, SPLP	0.0035 J	0.004
Cadmium, SPLP	0.001 J	0.005
Chromium, SPLP	0.11	0.1
Cobalt, SPLP	0.037 J	1
Copper, SPLP	0.17	0.65
Iron, SPLP	134 J	5
Lead, SPLP	0.35	0.0075
Manganese, SPLP	1.8	0.15
Mercury, SPLP	0.0002	0.002
Nickel, SPLP	0.13	0.1
Zinc, SPLP	0.5	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28737

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **319**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> VL9-16(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-6	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28783.D	1	03/18/14	AMY	n/a	n/a	MSV1079

Run #1	Initial Weight	Final Volume
Run #2	4.54 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	20.9	12	3.5	ug/kg	
71-43-2	Benzene	3.8	0.62	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	0.26	ug/kg	
75-25-2	Bromoform	ND	2.5	0.44	ug/kg	
74-83-9	Bromomethane	ND	2.5	0.74	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.8	ug/kg	
75-15-0	Carbon disulfide	0.77	6.2	0.16	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.5	0.27	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.2	0.93	ug/kg	
67-66-3	Chloroform	ND	2.5	0.21	ug/kg	
74-87-3	Chloromethane	ND	6.2	0.70	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	0.40	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	0.40	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	0.51	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.56	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.52	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.5	0.52	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	0.52	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.33	ug/kg	
100-41-4	Ethylbenzene	2.8	2.5	0.85	ug/kg	
591-78-6	2-Hexanone	ND	12	0.94	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.2	0.67	ug/kg	
75-09-2	Methylene chloride	2.7	2.5	0.66	ug/kg	
100-42-5	Styrene	ND	6.2	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.49	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.39	ug/kg	
108-88-3	Toluene	8.2	6.2	0.25	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.27	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.16  
4

## Report of Analysis

<b>Client Sample ID:</b> VL9-16(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-6	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.71	ug/kg	
79-01-6	Trichloroethene	ND	2.5	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	1.1	ug/kg	
1330-20-7	Xylene (total)	6.2	2.5	0.27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	43	ug/kg	JN
109-66-0	Pentane	2.40	24	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	8.4	ug/kg	JN
110-54-3	Hexane	4.24	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.28	7.3	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	4.5	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.34	3.1	ug/kg	JN
142-82-5	Heptane	7.53	10	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	16	ug/kg	JN
3726-46-3	Cyclopentane, 1-ethyl-2-methyl-	9.78	8.9	ug/kg	JN
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	9.93	2.8	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.54	2.8	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.53	2.8	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	4.1	ug/kg	JN
	Total TIC, Volatile		151.7	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> VL9-16(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-6	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18106.D	1	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	31.8	110	13	ug/kg	J
56-55-3	Benzo(a)anthracene	154	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	232	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	278	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	170	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	95.0	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	18.8	110	13	ug/kg	J
218-01-9	Chrysene	158	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL9-16(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-6	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	23.5	280	14	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	25.2	280	10	ug/kg	J
206-44-0	Fluoranthene	225	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	156	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	113	110	15	ug/kg	
129-00-0	Pyrene	213	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	93%		30-130%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL9-16(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-6	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6200	ug/kg JN
	Total TIC, Semi-Volatile		6200	ug/kg J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: VL9-16(0.5-1.5)-030614

Lab Sample ID: MC28737-6

Matrix: SO - Soil

Project: IDOT 048 - McHenry County, IL

Date Sampled: 03/06/14

Date Received: 03/07/14

Percent Solids: 89.0

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.9	0.91	0.19	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	37.6	4.5	0.066	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.31 B	0.36	0.022	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.063 B	0.36	0.038	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	68400	4500	57	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.2	0.91	0.086	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.2	4.5	0.043	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	17.2	2.3	0.50	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	15100	9.1	0.79	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	21.8	0.91	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	36100	450	4.6	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	495	1.4	0.036	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.036	0.0080	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	13.1	3.6	0.040	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	721	450	7.8	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.91	0.31	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1960	450	3.0	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.24 B	0.91	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	27.2	0.91	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	37.7	1.8	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

(1) Instrument QC Batch: MA16859

(2) Instrument QC Batch: MA16872

(3) Instrument QC Batch: MA16883

(4) Prep QC Batch: MP22656

(5) Prep QC Batch: MP22686

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL

## Report of Analysis

<b>Client Sample ID:</b> VL9-16(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-6	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.6		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> VL9-16(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-6A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0032 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.41 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0015 B	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.028 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0060 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL9-16(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-6B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.062		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.36 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0035 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.11		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.037 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	134		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.35		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.8		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00020		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.13		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.50		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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**CHAIN OF CUSTODY**

Accutest Laboratories of New England  
 495 Technology Center West, Building One  
 TEL: 508-481-6200 FAX: 508-481-7753  
 www.accutest.com

FED-EX Tracking #	Boiler Order Control #
Accutest Quote #	Accutest Job # <b>MC28737</b>

Client / Reporting Information				Project Information												Requested Analysis (see TEST CODE sheet)										Matrix Codes
Company Name <b>Western Solutions</b>				Project Name <b>IDOT - 04B McHenry County</b>																						DW - Drinking Water GW - Ground Water W/W - Waster SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address <b>750 E. Bunke Ct Ste 500</b>				Street: <b>Nevan Hills IL 60061</b>																						
City <b>Nevan Hills IL 60061</b>				Billing Information (if different from Report to)																						
Project Contact <b>S. Patrusiakumar</b>				Company Name																						
Phone # <b>817-918-4018</b>				Street Address																						
Fax # <b>-4055</b>				City																						
Sampler(s) Name(s) <b>T. Wallis</b>				State																						
Phone # <b>817-918-4130</b>				Zip																						
Project Manager				Attention:																						
POB #				PO#																						
Accutest Sample #	Field ID / Point of Collection	MEQHDI Vial #	Collection			Number of preserved Bottles														LAB USE ONLY						
			Date	Time	Sampled by	Matrix	# of bottles	HCl	NACOH	NaOH	H2SO4	H2S2O8	NONE	DI Water	MAGPH	ENCOPE	Burillite									
1	AL4-4(0.5-1.5)-030614		3-6-14	0710	TW	SO	3												X	X	X	X	X			
2	AL4-4(0.5-1.5)-030614			0710																						
3	AL4-5(0.5-1.5)-030614			0730																						
4	AL5-1(0.5-1.5)-030614			0745																						
5	AL5-2(0.5-1.5)-030614			0800																						
6	UL9-1(0.5-1.5)-030614			0810																						
7	RE10-1(0.5-1.5)-030614			0820																						
8	RE10-2(0.5-1.5)-030614			0835																						
9	RE10-3(0.5-1.5)-030614			0845																						
10	RE10-4(0.5-1.5)-030614			0855																						
11	RE10-5(0.5-1.5)-030614			0905																						
12	RE10-6(0.5-1.5)-030614		3-6-14	0920	TW	SO	3																			
Turnaround Time ( Business days)										Data Deliverable Information										Comments / Special Instructions						
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY										Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____										Commercial "A" = Results Only Commercial "B" = Results + QC Summary Loc BA, bFZ						
Emergency & Rush T/A data available VIA Lablink														Sample Custody must be documented below each time samples change possession, including courier delivery.								CHICAGO SC				
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:														
1 <i>T. Wallis</i>		3-6-14/1500		<i>[Signature]</i>		3:04		2 <i>FED</i>		3-7-14/800		2 <i>[Signature]</i>														
3				3				4				4														
5				5				Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Preserved where applicable		On Ice <input checked="" type="checkbox"/> Cooler Temp. <b>1.3-1.1-0.8</b>												

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**MC28737: Chain of Custody**

**Page 1 of 3**



FED-Ex Tracking # Accutest Quote #		Bottle Order Control # Accutest Job # <b>MC28737</b>																						
<b>Client / Reporting Information</b> Company Name: <b>Western Solutions</b> Street Address: <b>750 E. Bunke Ct Ste 500</b> City: <b>Norron Hills IL</b> State: <b>60061</b> Project Contact: <b>S. Babusankumar</b> Phone #: <b>847-918-4018</b> Fax #: <b>-4055</b> Sampler(s) Name(s): <b>T. Walls</b> Phone #: <b>817-918-4130</b>		<b>Project Information</b> Project Name: <b>IDOT-018 Metheny County</b> Street: _____ Billing Information (If different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Client POC: _____ Project Manager: _____ Attention: _____ POC# _____																						
<b>Requested Analysis (see TEST CODE sheet)</b> VGC SNOCS Total metals TCCP/SRP methods PH		<b>Matrix Codes</b> DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank																						
Accutest Sample #	Field ID / Point of Collection	MECH/DI Vial #	Collection		Sampled by	Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY						
			Date	Time				POC	NH3H	NH4O	PO4	NO3	NO2	NO	DI Water	MESH	ENCORE		Biofilm					
13	RPI-1 (0.5-1.5)-030614		3-6-14	0930	TW	SO	3										X	X	X	X	X			
14	RPI-2 (0.5-1.5)-030614			0940																				
15	RPI-2 (0.5-1.5)-030614D			0940																				
16	WT-1 (0.5-1.5)-030614			0955																				
17	WT-2 (0.5-1.5)-030614			1005																				
18	WT-3 (0.5-1.5)-030614			1015																				
19	WT-4 (0.5-1.5)-030614			1025																				
20	WT-5 (0.5-1.5)-030614		3-6-14	1035	TW	SO	3										X	X	X	X	X			
7.62114																								
<b>Turnaround Time ( Business days)</b> <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink										<b>Approved By (Accutest PM): / Date:</b> _____ _____					<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary					<b>Comments / Special Instructions</b>       				
<b>Relinquished by Sampler:</b> 1 <b>T. Walls</b> Date Time: <b>3-6-14/1500</b>										<b>Received By:</b> 1 <b>[Signature]</b> Date Time: <b>3/6/14 3:04</b>					<b>Relinquished By:</b> 2 <b>FEDEX</b> Date Time: <b>3-7-14 9:30</b>					<b>Received By:</b> 2 <b>[Signature]</b>				
<b>Relinquished by Sampler:</b> 3 _____ Date Time: _____										<b>Received By:</b> 3 _____ Date Time: _____					<b>Relinquished By:</b> 4 _____ Date Time: _____					<b>Received By:</b> 4 _____				
<b>Relinquished by:</b> 5 _____ Date Time: _____										<b>Received By:</b> 5 _____ Date Time: _____					<b>Relinquished By:</b> _____ Date Time: _____					<b>Received By:</b> _____ Date Time: _____				
										Custody Seal # _____					<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact _____					<input type="checkbox"/> On Ice _____ <input type="checkbox"/> Cooler Temp. _____				

5.1  
5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

1000 to 1514 Moraine Drive AND 14008 W. South Street

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.308894114 Longitude: -88.472407377  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.308894114 Longitude: -88.472407377

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS RE10-1, RE10-2, RE10-3, RE10-4, RE10-5, AND RE10-6 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-59. SEE FIGURE 3-11 AND 3-12 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28737

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

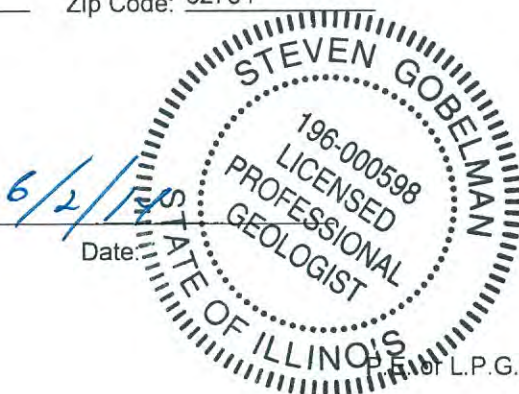
Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:



Date:

Professional L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-59**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE10-1(0.5-1.5)-030614	RE10-2(0.5-1.5)-030614	RE10-3(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RE10-1	RE10-2	RE10-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.3	8.1	8.9	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Acetone	22.6 J	21.6 J	19.9 J	25000
Benzene	5.5 J	3.5	3.1	30
Carbon disulfide	0.6 J	0.39 J	1.4 J	9000
Ethylbenzene	4.6 J	1.9 J	2.4	13000
Methylene chloride	4.9 J	2.9	2.5	20
Toluene	11.6 J	6.6	6.9	12000
Xylene (Total)	15.9 J	4.7	5.5	5600
<b>SVOCs (ug/kg)</b>				
Benzo(a)anthracene	42.6 J	ND	ND	900 / 1100 / 1800
Benzo(a)pyrene	43.3 J	ND	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	65.7 J	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	42.1 J	ND	ND	2300000
Benzo(k)fluoranthene	21.7 J	ND	ND	9000
bis(2-Ethylhexyl)phthalate	49 J	53.6 J	ND	46000
Chrysene	45.9 J	ND	ND	88000
Fluoranthene	68.3 J	ND	ND	3100000
Indeno(1,2,3-cd)pyrene	35.6 J	ND	ND	900 / 900 / 1600
Pyrene	65.9 J	ND	ND	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	6.3	4.8	6.6	11.3 / 13
Barium, Total	55.4	25.2	38.5	1500
Beryllium, Total	0.36 J	0.22 J	0.34 J	22
Cadmium, Total	0.055 J	0.081 J	0.062 J	5.2
Calcium, Total	49100	80300	47500	---
Chromium, Total	11.4 J	10.9 J	10 J	21
Cobalt, Total	5.4	4.8	5.3	20
Copper, Total	16.6	14	14.9	2900
Iron, Total	13500 J	12100 J	13500 J	15000 / 15900
Lead, Total	10.2	26.3	8.1	107
Magnesium, Total	30000	38700	24600	325000
Manganese, Total	390 J	331 J	362 J	630 / 636
Mercury, Total	0.013 J	ND	0.01 J	0.89
Nickel, Total	12.6	11.4	12.9	100
Potassium, Total	799	731	683	---
Sodium, Total	1550 J	1180 J	1500 J	---
Thallium, Total	0.19 J	0.32 J	0.23 J	2.6
Vanadium, Total	23.9	20	22	550
Zinc, Total	32.5 J	31.5 J	34 J	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	0.0038 J	ND	0.0033 J	0.05
Barium, TCLP	0.87	0.54	0.31 J	2
Cadmium, TCLP	0.0011 J	0.0015 J	0.0005 J	0.005
Chromium, TCLP	ND	0.0014 J	ND	0.1
Cobalt, TCLP	0.0053 J	0.0093 J	0.0011 J	1
Iron, TCLP	0.036 J	0.039 J	0.034 J	5
Manganese, TCLP	3.2	2.3	1.3	0.15
Nickel, TCLP	0.013 J	0.018 J	0.012 J	0.1
Selenium, TCLP	ND	0.0051 J	ND	0.05
Zinc, TCLP	0.091 J	0.098 J	0.0058 J	5

**Summary Table of ISGS Site No. 2792-59**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE10-1(0.5-1.5)-030614	RE10-2(0.5-1.5)-030614	RE10-3(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RE10-1	RE10-2	RE10-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.062	0.029	0.064	0.05
Barium, SPLP	0.57	0.2 J	0.35 J	2
Beryllium, SPLP	0.0042	0.0019 J	0.0043	0.004
Cadmium, SPLP	0.0008 J	0.0006 J	0.0006 J	0.005
Chromium, SPLP	0.12	0.065	0.11	0.1
Cobalt, SPLP	0.046 J	0.026 J	0.036 J	1
Copper, SPLP	0.15	0.088	0.16	0.65
Iron, SPLP	141 J	66.8 J	145 J	5
Lead, SPLP	0.11	0.11	0.068	0.0075
Manganese, SPLP	2.3	0.9	2	0.15
Mercury, SPLP	0.00027	ND	0.00026	0.002
Nickel, SPLP	0.14	0.078	0.14	0.1
Selenium, SPLP	0.0051 J	ND	ND	0.05
Zinc, SPLP	0.43	0.26	0.42	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

**Summary Table of ISGS Site No. 2792-59**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE10-4(0.5-1.5)-030614	RE10-5(0.5-1.5)-030614	RE10-6(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RE10-4	RE10-5	RE10-6	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.5	7.7	8.1	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Acetone	22.7 J	22.9 J	23.5 J	25000
Benzene	3.2	4.1	4	30
Carbon disulfide	1.6 J	ND	ND	9000
Ethylbenzene	2.8	2.6	2.8	13000
Methylene chloride	2.5	3	2.8	20
Toluene	7.1	8.3	8.4	12000
Xylene (Total)	6	6	7	5600
<b>SVOCs (ug/kg)</b>				
Benzo(a)anthracene	ND	ND	ND	900 / 1100 / 1800
Benzo(a)pyrene	ND	ND	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	ND	ND	2300000
Benzo(k)fluoranthene	ND	ND	ND	9000
bis(2-Ethylhexyl)phthalate	24.2 J	36.4 J	ND	46000
Chrysene	ND	ND	ND	88000
Fluoranthene	ND	ND	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	ND	ND	900 / 900 / 1600
Pyrene	ND	ND	ND	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	5.8	6.6	5.5	11.3 / 13
Barium, Total	24.5	39.4	39.2	1500
Beryllium, Total	0.21 J	0.33 J	0.29 J	22
Cadmium, Total	0.046 J	0.074 J	0.065 J	5.2
Calcium, Total	86200	69100	79900	---
Chromium, Total	8.9 J	10.6 J	9.5 J	21
Cobalt, Total	5.5	6.1	6.2	20
Copper, Total	15.3	14.8	15.9	2900
Iron, Total	13100 J	14200 J	13000 J	15000 / 15900
Lead, Total	7.2	22.9	7.5	107
Magnesium, Total	43700	35800	42200	325000
Manganese, Total	366 J	450 J	432 J	630 / 636
Mercury, Total	ND	0.0093 J	ND	0.89
Nickel, Total	12.4	13.8	14.6	100
Potassium, Total	695	757	905	---
Sodium, Total	1160 J	2460 J	1400 J	---
Thallium, Total	0.23 J	0.25 J	0.3 J	2.6
Vanadium, Total	22.6	22.6	18.8	550
Zinc, Total	33.3 J	35.8 J	33.3 J	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	0.0029 J	ND	0.0031 J	0.05
Barium, TCLP	0.33 J	0.44 J	0.49 J	2
Cadmium, TCLP	0.0012 J	0.0011 J	0.0013 J	0.005
Chromium, TCLP	ND	ND	ND	0.1
Cobalt, TCLP	0.0035 J	0.0008 J	0.012 J	1
Iron, TCLP	0.034 J	0.046 J	0.057 J	5
Manganese, TCLP	2.3	1.4	3.8	0.15
Nickel, TCLP	0.018 J	0.014 J	0.026 J	0.1
Selenium, TCLP	0.0048 J	0.0064 J	0.0055 J	0.05
Zinc, TCLP	0.0076 J	0.0067 J	0.0082 J	5

**Summary Table of ISGS Site No. 2792-59**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE10-4(0.5-1.5)-030614	RE10-5(0.5-1.5)-030614	RE10-6(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RE10-4	RE10-5	RE10-6	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.074	0.046	0.068	0.05
Barium, SPLP	0.35 J	0.26 J	0.64	2
Beryllium, SPLP	0.0037 J	0.0024 J	0.005	0.004
Cadmium, SPLP	0.0005 J	0.0005 J	0.0008 J	0.005
Chromium, SPLP	0.1	0.067	0.15	0.1
Cobalt, SPLP	0.039 J	0.026 J	0.056	1
Copper, SPLP	0.17	0.11	0.19	0.65
Iron, SPLP	148 J	93.2 J	175 J	5
Lead, SPLP	0.07	0.094	0.073	0.0075
Manganese, SPLP	1.9	1.1	2.2	0.15
Mercury, SPLP	0.00025	0.00013 J	0.00027	0.002
Nickel, SPLP	0.13	0.088	0.18	0.1
Selenium, SPLP	ND	ND	0.0059 J	0.05
Zinc, SPLP	0.47	0.33	0.49	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28737

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **319**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b> RE10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-7	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28807.D	1	03/19/14	AMY	n/a	n/a	MSV1080
Run #2 <sup>a</sup>	V28784.D	1	03/18/14	AMY	n/a	n/a	MSV1079

Run #	Initial Weight	Final Volume
Run #1	4.38 g	5.0 ml
Run #2	5.40 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	22.6	13	3.6	ug/kg	
71-43-2	Benzene	5.5	0.64	0.43	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.27	ug/kg	
75-25-2	Bromoform	ND	2.6	0.46	ug/kg	
74-83-9	Bromomethane	ND	2.6	0.78	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.0	ug/kg	
75-15-0	Carbon disulfide	0.60	6.4	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.6	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.97	ug/kg	
67-66-3	Chloroform	ND	2.6	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.73	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.42	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.6	0.34	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.6	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.6	0.53	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.6	0.58	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	0.54	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.6	0.54	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.54	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.34	ug/kg	
100-41-4	Ethylbenzene	4.6	2.6	0.89	ug/kg	
591-78-6	2-Hexanone	ND	13	0.98	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.6	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.4	0.70	ug/kg	
75-09-2	Methylene chloride	4.9	2.6	0.68	ug/kg	
100-42-5	Styrene	ND	6.4	0.22	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.51	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	0.40	ug/kg	
108-88-3	Toluene	11.6	6.4	0.27	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.28	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.19  
4

# Report of Analysis

<b>Client Sample ID:</b> RE10-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-7	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.74	ug/kg	
79-01-6	Trichloroethene	ND	2.6	0.32	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	1.2	ug/kg	
1330-20-7	Xylene (total)	15.9	2.6	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%	96%	70-130%
2037-26-5	Toluene-D8	76%	70%	70-130%
460-00-4	4-Bromofluorobenzene	125%	138% <sup>b</sup>	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.16	50	ug/kg	JN
109-66-0	Pentane	2.41	32	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.81	8.6	ug/kg	JN
110-54-3	Hexane	4.22	13	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	9.4	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	4.4	ug/kg	JN
2452-99-5	Cyclopentane, 1,2-dimethyl-	7.34	4.2	ug/kg	JN
142-82-5	Heptane	7.53	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	20	ug/kg	JN
583-57-3	Cyclohexane, 1,2-dimethyl-	9.93	3.8	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.53	9.3	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.61	5.8	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	12.95	13	ug/kg	JN
	Total TIC, Volatile		181.1	ug/kg	J

(a) Confirmation run.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE10-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-7	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18107.D	1	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	28	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	42.6	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	43.3	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	65.7	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	42.1	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	21.7	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	45.9	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE10-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-7	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	49.0	280	10	ug/kg	J
206-44-0	Fluoranthene	68.3	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	35.6	110	12	ug/kg	J
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	30	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	65.9	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	102%		30-130%
4165-60-0	Nitrobenzene-d5	81%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-7	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	97%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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4

# Report of Analysis

<b>Client Sample ID:</b> RE10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-7	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.3	0.92	0.19	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	55.4	4.6	0.067	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.36 B	0.37	0.022	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.055 B	0.37	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	49100	460	5.8	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	11.4	0.92	0.087	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.4	4.6	0.043	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	16.6	2.3	0.51	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13500	9.2	0.80	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	10.2	0.92	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	30000	460	4.7	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	390	1.4	0.037	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.013 B	0.037	0.0081	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.6	3.7	0.040	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	799	460	7.9	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1550	460	3.0	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.19 B	0.92	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	23.9	0.92	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	32.5	1.8	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16883
- (3) Prep QC Batch: MP22656
- (4) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-7	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.6		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.3		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

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**4**

## Report of Analysis

<b>Client Sample ID:</b> RE10-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-7A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.6
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0038 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.87	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0053 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.036 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.2			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.091 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)                      B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> RE10-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-7B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.062		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.57		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.046 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	141		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.3		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00027		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.14		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0051 B		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.43		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.21  
4

## Report of Analysis

<b>Client Sample ID:</b> RE10-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-8	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28785.D	1	03/18/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.15 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	21.6	11	3.0	ug/kg	
71-43-2	Benzene	3.5	0.54	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.65	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	0.39	5.4	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.82	ug/kg	
67-66-3	Chloroform	ND	2.2	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.61	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.28	ug/kg	
100-41-4	Ethylbenzene	1.9	2.2	0.75	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.82	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.4	0.58	ug/kg	
75-09-2	Methylene chloride	2.9	2.2	0.58	ug/kg	
100-42-5	Styrene	ND	5.4	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	6.6	5.4	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.22  
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## Report of Analysis

<b>Client Sample ID:</b> RE10-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-8	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.62	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.99	ug/kg	
1330-20-7	Xylene (total)	4.7	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	78%		70-130%
460-00-4	4-Bromofluorobenzene	109%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	40	ug/kg	JN
109-66-0	Pentane	2.41	25	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	7.1	ug/kg	JN
110-54-3	Hexane	4.23	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.28	6.8	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	3.1	ug/kg	JN
822-50-4	Cyclopentane, 1,2-dimethyl-, trans-	7.34	2.7	ug/kg	JN
142-82-5	Heptane	7.53	5.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	14	ug/kg	JN
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	9.93	2.2	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.54	2	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	12.95	3.1	ug/kg	JN
	Total TIC, Volatile		122.6	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE10-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-8	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18108.D	1	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	68	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	38	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RE10-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-8	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6300	ug/kg	JN
	Total TIC, Semi-Volatile		6300	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RE10-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-8	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.8	0.90	0.19	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	25.2	4.5	0.065	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.22 B	0.36	0.021	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.081 B	0.36	0.038	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	80300	4500	56	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.9	0.90	0.085	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.8	4.5	0.042	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.0	2.2	0.50	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12100	9.0	0.78	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	26.3	0.90	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	38700	450	4.6	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	331	1.3	0.036	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0078 U	0.035	0.0078	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	11.4	3.6	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	731	450	7.7	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1180	450	3.0	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.32 B	0.90	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	20.0	0.90	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	31.5	1.8	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-8	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.7		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> RE10-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-8A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.54	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 B	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0093 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.039 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.3			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0051 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.098 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-8B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.029		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.20 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0019 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.065		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.026 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.088		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	66.8		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.90		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.078		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.26		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.24  
4

## Report of Analysis

<b>Client Sample ID:</b> RE10-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28786.D	1	03/18/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.12 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	19.9	11	3.0	ug/kg	
71-43-2	Benzene	3.1	0.54	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.65	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	1.4	5.4	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.81	ug/kg	
67-66-3	Chloroform	ND	2.2	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.61	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.28	ug/kg	
100-41-4	Ethylbenzene	2.4	2.2	0.74	ug/kg	
591-78-6	2-Hexanone	ND	11	0.82	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.4	0.58	ug/kg	
75-09-2	Methylene chloride	2.5	2.2	0.57	ug/kg	
100-42-5	Styrene	ND	5.4	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	6.9	5.4	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.23	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b> RE10-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.62	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.98	ug/kg	
1330-20-7	Xylene (total)	5.5	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	33	ug/kg	JN
109-66-0	Pentane	2.40	21	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	6.2	ug/kg	JN
110-54-3	Hexane	4.23	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	5.8	ug/kg	JN
1192-18-3	Cyclopentane, 1,2-dimethyl-, cis-	7.34	2.6	ug/kg	JN
142-82-5	Heptane	7.53	7.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	14	ug/kg	JN
18829-55-5	2-Heptenal, (E)-	9.78	6.6	ug/kg	JN
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	9.93	2.3	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.53	2.5	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	4.3	ug/kg	JN
	Total TIC, Volatile		117.1	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE10-3(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-9	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18109.D	1	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	86	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	66	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	99	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	12	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RE10-3(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-9	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	16.8	260	13	ug/kg	JB
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	260	9.7	ug/kg	
206-44-0	Fluoranthene	ND	110	14	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	13	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	97%		30-130%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE10-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	99%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	5600	ug/kg	JN
	Total TIC, Semi-Volatile		5600	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4

# Report of Analysis

<b>Client Sample ID:</b> RE10-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.6	0.88	0.18	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	38.5	4.4	0.064	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.34 B	0.35	0.021	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.062 B	0.35	0.037	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	47500	440	5.5	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	10.0	0.88	0.084	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.3	4.4	0.041	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.9	2.2	0.49	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13500	8.8	0.77	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	8.1	0.88	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	24600	440	4.5	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	362	1.3	0.035	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.010 B	0.036	0.0080	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.9	3.5	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	683	440	7.6	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1500	440	2.9	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.23 B	0.88	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	22.0	0.88	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	34.0	1.8	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16883
- (3) Prep QC Batch: MP22656
- (4) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> RE10-3(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-9 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.7
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.7		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.9		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b> RE10-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-9A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0033 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.31 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00050 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0011 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.034 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.012 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0058 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)                      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-9B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.064		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.35 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0043		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.11		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.036 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.16		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	145		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.068		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.0		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00026		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.14		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.42		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.27  
4

# Report of Analysis

<b>Client Sample ID:</b> RE10-4(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-10	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28787.D	1	03/18/14	AMY	n/a	n/a	MSV1079

Run #1	Initial Weight	Final Volume
Run #2	5.53 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	22.7	10	2.8	ug/kg	
71-43-2	Benzene	3.2	0.51	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	1.6	5.1	0.13	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.77	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.27	ug/kg	
100-41-4	Ethylbenzene	2.8	2.0	0.70	ug/kg	
591-78-6	2-Hexanone	ND	10	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.55	ug/kg	
75-09-2	Methylene chloride	2.5	2.0	0.54	ug/kg	
100-42-5	Styrene	ND	5.1	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	7.1	5.1	0.21	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> RE10-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.93	ug/kg	
1330-20-7	Xylene (total)	6.0	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	33	ug/kg	JN
109-66-0	Pentane	2.41	22	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	6.5	ug/kg	JN
110-54-3	Hexane	4.22	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.28	6.3	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	3.8	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.34	2.7	ug/kg	JN
142-82-5	Heptane	7.53	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	14	ug/kg	JN
583-57-3	Cyclohexane, 1,2-dimethyl-	9.93	2.3	ug/kg	JN
1678-91-7	Cyclohexane, ethyl-	10.54	2.3	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.53	2.8	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	4.6	ug/kg	JN
	Total TIC, Volatile		118.9	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE10-4(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-10	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18110.D	1	03/11/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RE10-4(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-10	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	24.2	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE10-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RE10-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.8	0.92	0.19	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	24.5	4.6	0.067	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.21 B	0.37	0.022	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.046 B	0.37	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	86200	4600	58	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.9	0.92	0.088	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.5	4.6	0.043	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.3	2.3	0.51	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13100	9.2	0.80	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.2	0.92	0.16	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	43700	460	4.7	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	366	1.4	0.037	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0081 U	0.037	0.0081	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	12.4	3.7	0.041	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	695	460	7.9	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.46	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1160	460	3.1	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.23 B	0.92	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.6	0.92	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	33.3	1.8	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.8		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.5		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> RE10-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-10A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.33 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0035 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.034 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.3			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0076 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> RE10-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-10B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.074		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.35 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0037 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.10		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.039 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	148		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.070		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.9		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00025		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.13		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.47		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.30  
4

# Report of Analysis

<b>Client Sample ID:</b> RE10-5(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-11	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28788.D	1	03/19/14	AMY	n/a	n/a	MSV1079

Run #1	Initial Weight	Final Volume
Run #2	4.54 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	22.9	13	3.6	ug/kg	
71-43-2	Benzene	4.1	0.64	0.43	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.27	ug/kg	
75-25-2	Bromoform	ND	2.6	0.45	ug/kg	
74-83-9	Bromomethane	ND	2.6	0.77	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.9	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	0.17	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.97	ug/kg	
67-66-3	Chloroform	ND	2.6	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.72	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.41	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.6	0.34	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.6	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.6	0.53	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.6	0.58	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	0.53	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.6	0.53	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.54	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.34	ug/kg	
100-41-4	Ethylbenzene	2.6	2.6	0.88	ug/kg	
591-78-6	2-Hexanone	ND	13	0.97	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.6	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.4	0.69	ug/kg	
75-09-2	Methylene chloride	3.0	2.6	0.68	ug/kg	
100-42-5	Styrene	ND	6.4	0.22	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.50	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	0.40	ug/kg	
108-88-3	Toluene	8.3	6.4	0.26	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.28	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.31  
 4

## Report of Analysis

<b>Client Sample ID:</b> RE10-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.0
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.73	ug/kg	
79-01-6	Trichloroethene	ND	2.6	0.31	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	1.2	ug/kg	
1330-20-7	Xylene (total)	6.0	2.6	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	46	ug/kg	JN
109-66-0	Pentane	2.39	27	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	8	ug/kg	JN
110-54-3	Hexane	4.22	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.28	8.2	ug/kg	JN
13151-17-2	2-Hexene, 5-methyl-, (Z)-	7.34	3.1	ug/kg	JN
142-82-5	Heptane	7.53	8.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	16	ug/kg	JN
1708-29-8	Furan, 2,5-dihydro-	9.12	3.6	ug/kg	JN
1000113-60-41	Ethyl-2-(4-methylpentyl)cyclopentane	9.78	6.9	ug/kg	JN
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	9.93	2.4	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.53	2.7	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	4.2	ug/kg	JN
	Total TIC, Volatile		150.7	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.31  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE10-5(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-11	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18111.D	1	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE10-5(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-11	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	36.4	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	89%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RE10-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.0
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	97%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	5800	ug/kg	JN
	Total TIC, Semi-Volatile		5800	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.31  
4

# Report of Analysis

<b>Client Sample ID:</b> RE10-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.6	0.92	0.19	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	39.4	4.6	0.067	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.33 B	0.37	0.022	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.074 B	0.37	0.039	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	69100	4600	58	mg/kg	10	03/13/14	03/14/14 EAL	SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.6	0.92	0.088	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.1	4.6	0.043	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.8	2.3	0.51	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14200	9.2	0.80	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	22.9	0.92	0.16	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	35800	460	4.7	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	450	1.4	0.037	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0093 B	0.038	0.0084	mg/kg	1	03/18/14	03/19/14 SA	SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	13.8	3.7	0.041	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	757	460	7.9	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.46	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2460	460	3.1	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.25 B	0.92	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.6	0.92	0.12	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	35.8	1.8	0.15	mg/kg	1	03/13/14	03/13/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.31  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	7.7		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> RE10-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-11A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.44 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00080 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.046 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0064 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0067 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-11B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.046		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.26 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0024 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.067		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.026 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	93.2		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.094		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00013 B		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.088		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.33		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.33  
4

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28789.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.75 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	23.5	12	3.4	ug/kg	
71-43-2	Benzene	4.0	0.60	0.41	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.43	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.73	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.7	ug/kg	
75-15-0	Carbon disulfide	ND	6.0	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.91	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.68	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.39	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.50	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.32	ug/kg	
100-41-4	Ethylbenzene	2.8	2.4	0.83	ug/kg	
591-78-6	2-Hexanone	ND	12	0.91	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.0	0.65	ug/kg	
75-09-2	Methylene chloride	2.8	2.4	0.64	ug/kg	
100-42-5	Styrene	ND	6.0	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.38	ug/kg	
108-88-3	Toluene	8.4	6.0	0.25	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.69	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	7.0	2.4	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	43	ug/kg	JN
109-66-0	Pentane	2.40	27	ug/kg	JN
75-18-3	Dimethyl sulfide	2.94	4.6	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	7.9	ug/kg	JN
110-54-3	Hexane	4.23	15	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	7.8	ug/kg	JN
2452-99-5	Cyclopentane, 1,2-dimethyl-	7.34	3.1	ug/kg	JN
142-82-5	Heptane	7.53	8.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	16	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.53	3.2	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	4.3	ug/kg	JN
	Total TIC, Volatile		140.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-12	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18112.D	1	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-12	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	96%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-12 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 87.3
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	98%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.5	0.92	0.19	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	39.2	4.6	0.067	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.29 B	0.37	0.022	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.065 B	0.37	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	79900	4600	58	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.5	0.92	0.088	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.2	4.6	0.043	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.9	2.3	0.51	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13000	9.2	0.80	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.5	0.92	0.16	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	42200	460	4.7	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	432	1.4	0.037	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0080 U	0.036	0.0080	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	14.6	3.7	0.041	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	905	460	7.9	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.46	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1400	460	3.1	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.30 B	0.92	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.8	0.92	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	33.3	1.8	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.34  
 4

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-12 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 87.3
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.3		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/11/14	MA	SW846 9045D

---

RL = Reporting Limit

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-12A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 87.3
---	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0031 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.49 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.012 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.057 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.8			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.026 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0055 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0082 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.068		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.64		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0050		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.056		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.19		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	175		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.073		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.2		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00027		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.18		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0059 B		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.49		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.36  
4



Client / Reporting Information Company Name: <u>Weston Solutions</u> Street Address: <u>750 E. Burke Ct Ste 500</u> City: <u>Norran Hills IL</u> State: <u>IL</u> Zip: <u>60061</u> Project Contact: <u>S. Babusankumar</u> E-mail: _____ Phone #: <u>847-918-4018</u> Fax #: <u>-4055</u> Sampler(s) Name(s): <u>J. Walls</u> Phone #: <u>817-918-4130</u>			Project Information Project Name: <u>IDOT-018 Methuen County</u> Billing Information (If different from Report to) Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project Manager: _____ Attention: _____ PO#: _____						Requested Analysis (see TEST CODE sheet) <div style="font-size: small;">           DW - Drinking Water            GW - Ground Water            WW - Water            SW - Surface Water            SO - Soil            SL - Sludge            SED - Sediment            OL - Oil            LIQ - Other Liquid            AIR - Air            SOL - Other Solid            WP - Wipe            FB - Field Blank            EB - Equipment Blank            RB - Rinse Blank            TB - Trip Blank         </div>									Matrix Codes LAB USE ONLY
Accutest Sample #	Field ID / Point of Collection	MECH/DI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles										Comments / Special Instructions
			Date	Time	Sampled by			PCD	NH3H	NH3O3	F253CK	NONE	DI Waiver	MEQH	ENCORE	Biolum		
<del>13</del>	<del>RPI-1 (0.5-1.5) - 030614</del>		<del>3-6-14</del>	<del>0930</del>	<del>TW</del>	<del>SO</del>	<del>3</del>										<del></del>	
14	RPI-2 (0.5-1.5) - 030614			0940													↓	
15	RPI-2 (0.5-1.5) - 030614			0940													↓	
16	WT-1 (0.5-1.5) - 030614			0955													↓	
17	WT-2 (0.5-1.5) - 030614			1005													↓	
18	WT-3 (0.5-1.5) - 030614			1015													↓	
19	WT-4 (0.5-1.5) - 030614			1025													↓	
20	WT-5 (0.5-1.5) - 030614		3-6-14	1035	TW	SO	3										X X X X X	
<del>7.6.2014</del>																		

5.1  
5





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

13818 W. South Street

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.306593934 Longitude: -88.471209338

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.306593934 Longitude: -88.471209338Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS VL18-1, VL18-2, AND VL18-3 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-60. SEE FIGURE 3-12 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28687

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

**Summary Table of ISGS Site No. 2792-60**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL18-1(0.5-1.5)-030614	VL18-2(0.5-1.5)-030414	VL18-3(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/4/2014	3/4/2014	
Location ID	VL18-1	VL18-2	VL18-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.1	8.4	9	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Acetone	39.2 J	ND	ND	25000
Benzene	1.9	1.5	1.9	30
Carbon disulfide	0.8 J	ND	ND	9000
Ethylbenzene	1.5 J	0.96 J	1.2 J	13000
Methylene chloride	3.7	1.2 J	1.2 J	20
Toluene	4.4 J	3.2 J	4 J	12000
Xylene (Total)	3.1	2.7	3.1	5600
<b>SVOCs (ug/kg)</b>				
Benzo(a)anthracene	ND	15.2 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	ND	17.2 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	19 J	ND	900 / 1500 / 2100
bis(2-Ethylhexyl)phthalate	ND	14.2 J	ND	46000
Chrysene	ND	19.1 J	ND	88000
Fluoranthene	ND	30.8 J	ND	3100000
Phenanthrene	ND	16.2 J	ND	210000
Pyrene	ND	27.3 J	ND	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	5	9.6	5.4	11.3 / 13
Barium, Total	17.7	84.4	101	1500
Beryllium, Total	0.15 J	0.61	0.4	22
Cadmium, Total	ND	0.082 J	0.12 J	5.2
Calcium, Total	94500 J	14500	16500	---
Chromium, Total	10.2	19.1 J	14.1 J	21
Cobalt, Total	4.1 J	8.5	10	20
Copper, Total	11.5	20.9	11.4	2900
Iron, Total	11100	26000	15900	15000 / 15900
Lead, Total	8.6	15.5	14.9	107
Magnesium, Total	43000	9740	10000	325000
Manganese, Total	291	389 J	330 J	630 / 636
Mercury, Total	0.0089 J	0.037	0.015 J	0.89
Nickel, Total	10.7	18.5	11.4	100
Potassium, Total	581	870	686	---
Sodium, Total	884	4480	3790	---
Thallium, Total	0.39 J	0.27 J	0.14 J	2.6
Vanadium, Total	15.2	40	26.6	550
Zinc, Total	27.8 J	49.9 J	35.8 J	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	0.0029 J	0.0039 J	ND	0.05
Barium, TCLP	0.26 J	0.81	0.6	2
Cadmium, TCLP	0.0009 J	0.0012 J	0.0013 J	0.005
Cobalt, TCLP	0.0017 J	0.029 J	0.024 J	1
Copper, TCLP	ND	0.0094 J	0.0074 J	0.65
Iron, TCLP	ND	0.071 J	0.02 J	5
Lead, TCLP	0.0027 J	0.0021 J	0.0017 J	0.0075
Manganese, TCLP	1.3	7.1	6.8	0.15
Nickel, TCLP	0.013 J	0.02 J	0.024 J	0.1
Selenium, TCLP	0.0056 J	0.0098 J	0.0094 J	0.05
Zinc, TCLP	0.0048 J	0.013 J	0.012 J	5

**Summary Table of ISGS Site No. 2792-60**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL18-1(0.5-1.5)-030614	VL18-2(0.5-1.5)-030414	VL18-3(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/4/2014	3/4/2014	
Location ID	VL18-1	VL18-2	VL18-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
SPLP Metals (mg/l)				
Arsenic, SPLP	0.026	0.11	0.052	0.05
Barium, SPLP	0.24 J	1.5	0.8	2
Beryllium, SPLP	0.0014 J	0.011	0.0042	0.004
Cadmium, SPLP	0.0005 J	0.0027 J	0.0017 J	0.005
Chromium, SPLP	0.042	0.29	0.14	0.1
Cobalt, SPLP	0.015 J	0.1	0.059	1
Copper, SPLP	0.07	0.34	0.15	0.65
Iron, SPLP	51.8	378 J	139 J	5
Lead, SPLP	0.024	0.17	0.14	0.0075
Manganese, SPLP	0.71	4.7	2.9	0.15
Mercury, SPLP	ND	0.00093	0.00033	0.002
Nickel, SPLP	0.046	0.27	0.11	0.1
Selenium, SPLP	ND	0.0098 J	0.0093 J	0.05
Zinc, SPLP	0.18 J	0.73 J	0.41 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28687

Sampling Date: 03/04/14

Report to:

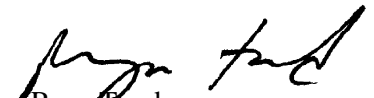
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **279**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-6	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63744.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.59 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	1.5	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.62	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.78	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	0.82	2.1	0.71	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.78	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	0.95	2.1	0.55	ug/kg	J
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.32	ug/kg	
108-88-3	Toluene	2.7	5.2	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.16  
4

## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-6	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.59	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.94	ug/kg	
1330-20-7	Xylene (total)	2.0	2.1	0.23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	28	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	12	ug/kg	JN
109-66-0	Pentane	6.48	11	ug/kg	JN
110-54-3	Hexane	8.46	5.5	ug/kg	JN
110-82-7	Cyclohexane	9.91	5.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	6.6	ug/kg	JN
	Total TIC, Volatile		68.5	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-6	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71681.D	1	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	94	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	72	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	29	ug/kg	
88-75-5	2-Nitrophenol	ND	580	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	15	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	14	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-6	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.0	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	82.7	290	11	ug/kg	J
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	14	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	14	ug/kg	
91-20-3	Naphthalene	ND	120	18	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	75%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-6 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	86%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.64	5500	ug/kg JN
	Total TIC, Semi-Volatile		5500	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-6	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	7.0	0.95	0.20	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	43.3	4.7	0.069	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.33 B	0.38	0.023	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.057 B	0.38	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	71000	4700	60	mg/kg	10	03/07/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	11.6	0.95	0.090	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.5	4.7	0.045	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	16.4	2.4	0.53	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14900	9.5	0.83	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	10.3	0.95	0.16	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	34200	470	4.9	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	400	1.4	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.016 B	0.035	0.0077	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	15.0	3.8	0.042	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	851	470	8.1	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.95	0.33	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	3130	470	3.1	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.13 B	0.95	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	25.7	0.95	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	44.0	1.9	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-6 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.4
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.4		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-6A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.58	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0032 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0078 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.2			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0098 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0092 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL10-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-6B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.056		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.45 B		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0033 B		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0018 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.095		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.033 B		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.16		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	128		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.067		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00020		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0053 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 B		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.42		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-7	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63745.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.79 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/kg	
71-43-2	Benzene	1.5	0.50	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.60	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.76	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.41	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.45	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.26	ug/kg	
100-41-4	Ethylbenzene	0.96	2.0	0.69	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.76	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.54	ug/kg	
75-09-2	Methylene chloride	1.2	2.0	0.53	ug/kg	J
100-42-5	Styrene	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.39	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.31	ug/kg	
108-88-3	Toluene	3.2	5.0	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.57	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.91	ug/kg	
1330-20-7	Xylene (total)	2.7	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	17	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	10	ug/kg	JN
109-66-0	Pentane	6.48	9.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.9	ug/kg	JN
	Total TIC, Volatile		44.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-7	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71682.D	1	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	94	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	72	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	29	ug/kg	
88-75-5	2-Nitrophenol	ND	580	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	15	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	15.2	120	15	ug/kg	J
50-32-8	Benzo(a)pyrene	17.2	120	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	19.0	120	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	120	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	14	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	19.1	120	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-7	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.0	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	14.2	290	11	ug/kg	J
206-44-0	Fluoranthene	30.8	120	16	ug/kg	J
86-73-7	Fluorene	ND	120	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	14	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	14	ug/kg	
91-20-3	Naphthalene	ND	120	18	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	16.2	120	16	ug/kg	J
129-00-0	Pyrene	27.3	120	14	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	76%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	82%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-7 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5800	ug/kg	JN
	Total TIC, Semi-Volatile		5800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.19  
4

# Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	9.6	0.91	0.19	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	84.4	4.6	0.066	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.61	0.37	0.022	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.082 B	0.37	0.039	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	14500	460	5.7	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	19.1	0.91	0.087	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	8.5	4.6	0.043	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	20.9	2.3	0.51	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	26000	91	8.0	mg/kg	10	03/07/14	03/12/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Lead	15.5	0.91	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	9740	460	4.7	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	389	1.4	0.037	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.037	0.036	0.0080	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	18.5	3.7	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	870	460	7.8	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	4480	460	3.0	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.27 B	0.91	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	40.0	0.91	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	49.9	1.8	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16853
- (3) Instrument QC Batch: MA16855
- (4) Prep QC Batch: MP22610
- (5) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.1		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.4		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.19  
**4**

# Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-7A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0039 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.81	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.029 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0094 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.071 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0021 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	7.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.020 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0098 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL10-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-7B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.11		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.5		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.011		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0027 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.29		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.10		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.34		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	378		0.50	0.10	mg/l	5	03/11/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Lead	0.17		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	4.7		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00093		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.27		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0098 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.73		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Instrument QC Batch: MA16875
- (4) Prep QC Batch: MP22638
- (5) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.21  
4

## Report of Analysis

<b>Client Sample ID:</b>	VL10-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-8	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.9
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63746.D	1	03/12/14	KD	n/a	n/a	MSM2235
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.25 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.0	ug/kg	
71-43-2	Benzene	1.9	0.54	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.4	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.81	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	1.2	2.1	0.74	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.4	0.58	ug/kg	
75-09-2	Methylene chloride	1.2	2.1	0.57	ug/kg	J
100-42-5	Styrene	ND	5.4	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.34	ug/kg	
108-88-3	Toluene	4.0	5.4	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> VL10-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.97	ug/kg	
1330-20-7	Xylene (total)	3.1	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.48	13	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.83	7.7	ug/kg	JN
4971-18-0	Cyclopentanone, 2-ethyl-	9.92	6.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.5	ug/kg	JN
	Total TIC, Volatile		35.5	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL10-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-8	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71683.D	5	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	71	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	81	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	700	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	75	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	530	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	80	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	70	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	69	ug/kg	
83-32-9	Acenaphthene	ND	560	75	ug/kg	
208-96-8	Acenaphthylene	ND	560	56	ug/kg	
120-12-7	Anthracene	ND	560	68	ug/kg	
56-55-3	Benzo(a)anthracene	ND	560	72	ug/kg	
50-32-8	Benzo(a)pyrene	ND	560	60	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	560	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	560	56	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	560	85	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	71	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	76	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	70	ug/kg	
86-74-8	Carbazole	ND	560	66	ug/kg	
218-01-9	Chrysene	ND	560	70	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	66	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	85	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	86	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL10-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28687-8	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	73	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	80	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	75	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	70	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	67	ug/kg	
132-64-9	Dibenzofuran	ND	560	78	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	70	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	81	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	52	ug/kg	
206-44-0	Fluoranthene	ND	560	77	ug/kg	
86-73-7	Fluorene	ND	560	75	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	88	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	81	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	560	62	ug/kg	
78-59-1	Isophorone	ND	1400	65	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	71	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	70	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	70	ug/kg	
91-20-3	Naphthalene	ND	560	90	ug/kg	
98-95-3	Nitrobenzene	ND	1400	76	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	80	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	85	ug/kg	
85-01-8	Phenanthrene	ND	560	76	ug/kg	
129-00-0	Pyrene	ND	560	66	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	77	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	54%		30-130%
118-79-6	2,4,6-Tribromophenol	60%		30-130%
4165-60-0	Nitrobenzene-d5	50%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL10-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.9
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	76%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	4900	ug/kg	JN
	Total TIC, Semi-Volatile		4900	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL10-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.4	0.90	0.19	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	101	4.5	0.065	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.40	0.36	0.021	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.12 B	0.36	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	16500	450	5.7	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	14.1	0.90	0.085	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	10.0	4.5	0.042	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	11.4	2.2	0.50	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	15900	9.0	0.78	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	14.9	0.90	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	10000	450	4.6	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	330	1.3	0.036	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.015 B	0.034	0.0074	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	11.4	3.6	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	686	450	7.7	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	3790	450	3.0	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.14 B	0.90	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	26.6	0.90	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	35.8	1.8	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16855
- (3) Prep QC Batch: MP22610
- (4) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL10-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-8 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.9
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.9		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	9.0		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> VL10-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-8A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.60	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.024 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0074 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	6.8			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.024 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0094 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.012 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL10-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-8B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.9
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.052		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.80		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0017 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.059		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	139		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.14		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.9		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00033		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0093 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.41		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.24  
4









Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
14023 W. South Street

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.305059776 Longitude: -88.470194465  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.305059776 Longitude: -88.470194465Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION RE10-6 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-62. SEE FIGURE 3-12 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28737

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G.

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

**Summary Table of ISGS Site No. 2792-62**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE10-6(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	RE10-6	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.1	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Acetone	23.5 J	25000
Benzene	4	30
Ethylbenzene	2.8	13000
Methylene chloride	2.8	20
Toluene	8.4	12000
Xylene (Total)	7	5600
<b>SVOCs (ug/kg)</b>	None Detected	
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	5.5	11.3 / 13
Barium, Total	39.2	1500
Beryllium, Total	0.29 J	22
Cadmium, Total	0.065 J	5.2
Calcium, Total	79900	---
Chromium, Total	9.5 J	21
Cobalt, Total	6.2	20
Copper, Total	15.9	2900
Iron, Total	13000 J	15000 / 15900
Lead, Total	7.5	107
Magnesium, Total	42200	325000
Manganese, Total	432 J	630 / 636
Nickel, Total	14.6	100
Potassium, Total	905	---
Sodium, Total	1400 J	---
Thallium, Total	0.3 J	2.6
Vanadium, Total	18.8	550
Zinc, Total	33.3 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0031 J	0.05
Barium, TCLP	0.49 J	2
Cadmium, TCLP	0.0013 J	0.005
Cobalt, TCLP	0.012 J	1
Iron, TCLP	0.057 J	5
Manganese, TCLP	3.8	0.15
Nickel, TCLP	0.026 J	0.1
Selenium, TCLP	0.0055 J	0.05
Zinc, TCLP	0.0082 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.068	0.05
Barium, SPLP	0.64	2
Beryllium, SPLP	0.005	0.004
Cadmium, SPLP	0.0008 J	0.005
Chromium, SPLP	0.15	0.1
Cobalt, SPLP	0.056	1
Copper, SPLP	0.19	0.65
Iron, SPLP	175 J	5
Lead, SPLP	0.073	0.0075
Manganese, SPLP	2.2	0.15
Mercury, SPLP	0.00027	0.002
Nickel, SPLP	0.18	0.1
Selenium, SPLP	0.0059 J	0.05
Zinc, SPLP	0.49	5

**Summary Table of ISGS Site No. 2792-62**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28737

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **319**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

*Reza Pand*  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28789.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.75 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	23.5	12	3.4	ug/kg	
71-43-2	Benzene	4.0	0.60	0.41	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.43	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.73	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.7	ug/kg	
75-15-0	Carbon disulfide	ND	6.0	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.91	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.68	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.39	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.50	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.32	ug/kg	
100-41-4	Ethylbenzene	2.8	2.4	0.83	ug/kg	
591-78-6	2-Hexanone	ND	12	0.91	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.0	0.65	ug/kg	
75-09-2	Methylene chloride	2.8	2.4	0.64	ug/kg	
100-42-5	Styrene	ND	6.0	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.38	ug/kg	
108-88-3	Toluene	8.4	6.0	0.25	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4



## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.69	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	7.0	2.4	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	43	ug/kg	JN
109-66-0	Pentane	2.40	27	ug/kg	JN
75-18-3	Dimethyl sulfide	2.94	4.6	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.82	7.9	ug/kg	JN
110-54-3	Hexane	4.23	15	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	7.8	ug/kg	JN
2452-99-5	Cyclopentane, 1,2-dimethyl-	7.34	3.1	ug/kg	JN
142-82-5	Heptane	7.53	8.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	16	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.53	3.2	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	4.3	ug/kg	JN
	Total TIC, Volatile		140.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-12	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18112.D	1	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-12	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	96%		30-130%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	98%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
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# Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.5	0.92	0.19	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	39.2	4.6	0.067	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.29 B	0.37	0.022	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.065 B	0.37	0.039	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	79900	4600	58	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.5	0.92	0.088	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.2	4.6	0.043	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.9	2.3	0.51	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13000	9.2	0.80	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.5	0.92	0.16	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	42200	460	4.7	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	432	1.4	0.037	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0080 U	0.036	0.0080	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	14.6	3.7	0.041	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	905	460	7.9	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.12 U	0.46	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1400	460	3.1	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.30 B	0.92	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.8	0.92	0.12	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	33.3	1.8	0.15	mg/kg	1	03/13/14	03/13/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.34  
 4

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.3		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

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**4**

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0031 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.49 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.012 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.057 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.8			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.026 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0055 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0082 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE10-6(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-12B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.068		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.64		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0050		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.056		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.19		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	175		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.073		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.2		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00027		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.18		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0059 B		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.49		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)                      B = Indicates a result > = MDL but < RL

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

13911 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: \_\_\_\_\_ Longitude: - \_\_\_\_\_  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

EPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: \_\_\_\_\_ Longitude: - \_\_\_\_\_

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS RP1-1 AND RP1-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-63. SEE FIGURE 3-12 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28737


**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
 Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



**Summary Table of ISGS Site No. 2792-63**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RP1-1(0.5-1.5)-030614	RP1-2(0.5-1.5)-030614	RP1-2(0.5-1.5)-030614D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RP1-1	RP1-2	RP1-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	7.8	8.1	7.9	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Acetone	70.6 J	76.3 J	67.8 J	25000
Benzene	3.3	3.3	3	30
Carbon disulfide	2 J	ND	ND	9000
Ethylbenzene	2.4 J	2.1	2	13000
Methyl ethyl ketone	12.1 J	14	10.5	17000
Methylene chloride	3.1	3	2.9	20
Toluene	6.9	6.3	6	12000
Xylene (Total)	5.6	6.4	5.5	5600
<b>SVOCs (ug/kg)</b>				
Anthracene	25.2 J	ND	ND	1.20E+07
Benzo(a)anthracene	59 J	ND	ND	900 / 1100 / 1800
Benzo(a)pyrene	56.4 J	ND	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	71.2 J	ND	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	39.1 J	ND	ND	2300000
Benzo(k)fluoranthene	23.4 J	ND	ND	9000
bis(2-Ethylhexyl)phthalate	39.5 J	ND	ND	46000
Carbazole	15.7 J	ND	ND	600
Chrysene	54.4 J	ND	ND	88000
Fluoranthene	120	85.2 J	152 J	3100000
Indeno(1,2,3-cd)pyrene	30.6 J	ND	ND	900 / 900 / 1600
Phenanthrene	138	ND	ND	210000
Pyrene	103 J	72.6 J	115 J	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	7.1	3.5	4.5	11.3 / 13
Barium, Total	109	27.3	38.3	1500
Beryllium, Total	0.55	0.17 J	0.23 J	22
Cadmium, Total	0.048 J	ND	0.088 J	5.2
Calcium, Total	20800	129000	84700	---
Chromium, Total	15 J	10.7 J	9.8 J	21
Cobalt, Total	8.5	3.2 J	4.5	20
Copper, Total	16.3	10.8	13.1	2900
Iron, Total	18700 J	8440 J	10600 J	15000 / 15900
Lead, Total	13	23.7	27.4	107
Magnesium, Total	13600	71000	45200	325000
Manganese, Total	494 J	360 J	338 J	630 / 636
Mercury, Total	0.021 J	ND	0.011 J	0.89
Nickel, Total	17.7	8.9	10.9	100
Potassium, Total	811	622	708	---
Selenium, Total	0.33 J	ND	ND	1.3
Sodium, Total	2390 J	1320 J	1520 J	---
Thallium, Total	0.19 J	0.24 J	0.25 J	2.6
Vanadium, Total	29.4	17.1	19.2	550
Zinc, Total	35.9 J	28.7 J	35.7 J	5100

**Summary Table of ISGS Site No. 2792-63**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RP1-1(0.5-1.5)-030614	RP1-2(0.5-1.5)-030614	RP1-2(0.5-1.5)-030614D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RP1-1	RP1-2	RP1-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	0.0069 J	0.0041 J	0.005 J	0.05
Barium, TCLP	0.87	0.62	0.53	2
Cadmium, TCLP	0.0014 J	0.0019 J	0.0017 J	0.005
Cobalt, TCLP	0.026 J	0.021 J	0.021 J	1
Iron, TCLP	0.4 J	0.12 J	0.092 J	5
Lead, TCLP	ND	0.0019 J	0.0017 J	0.0075
Manganese, TCLP	13.3	5.2	4.8	0.15
Nickel, TCLP	0.022 J	0.021 J	0.022 J	0.1
Selenium, TCLP	ND	ND	0.0051 J	0.05
Zinc, TCLP	0.02 J	0.035 J	0.056 J	5
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.039	0.029	0.027	0.05
Barium, SPLP	0.54	0.31 J	0.32 J	2
Beryllium, SPLP	0.0038 J	0.0024 J	0.0021 J	0.004
Cadmium, SPLP	0.0018 J	0.0008 J	0.0006 J	0.005
Chromium, SPLP	0.13	0.072	0.064	0.1
Cobalt, SPLP	0.043 J	0.029 J	0.027 J	1
Copper, SPLP	0.17	0.093	0.088	0.65
Iron, SPLP	122 J	75.5 J	69.9 J	5
Lead, SPLP	0.38	0.11	0.11	0.0075
Manganese, SPLP	2.3	1.1	0.96	0.15
Mercury, SPLP	0.00017 J	0.00011 J	ND	0.002
Nickel, SPLP	0.13	0.083	0.076	0.1
Zinc, SPLP	0.45	0.31	0.28	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28737

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **319**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> RP1-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-13	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28790.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.35 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	70.6	14	3.8	ug/kg	
71-43-2	Benzene	3.3	0.68	0.46	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.48	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.81	ug/kg	
78-93-3	2-Butanone (MEK)	12.1	14	4.1	ug/kg	J
75-15-0	Carbon disulfide	2.0	6.8	0.18	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.8	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.8	0.76	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.44	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.56	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.56	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.56	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.57	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.36	ug/kg	
100-41-4	Ethylbenzene	2.4	2.7	0.93	ug/kg	J
591-78-6	2-Hexanone	ND	14	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.8	0.73	ug/kg	
75-09-2	Methylene chloride	3.1	2.7	0.72	ug/kg	
100-42-5	Styrene	ND	6.8	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.53	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	6.9	6.8	0.28	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.37  
**4**



# Report of Analysis

<b>Client Sample ID:</b> RP1-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-13	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.77	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	5.6	2.7	0.30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.16	43	ug/kg	JN
109-66-0	Pentane	2.40	22	ug/kg	JN
110-54-3	Hexane	4.22	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.28	6.7	ug/kg	JN
2452-99-5	Cyclopentane, 1,2-dimethyl-	7.33	2.6	ug/kg	JN
142-82-5	Heptane	7.53	6.1	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	14	ug/kg	JN
1000195-03-0	Cyclobut-1-enylmethanol	9.77	4.5	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	12.53	2.5	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	4.3	ug/kg	JN
13389-42-9	2-Octene, (E)-	13.44	2.7	ug/kg	JN
	Total TIC, Volatile		119.4	ug/kg	J

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## Report of Analysis

<b>Client Sample ID:</b>	RP1-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-13	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18113.D	1	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	71	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	25.2	110	14	ug/kg	J
56-55-3	Benzo(a)anthracene	59.0	110	15	ug/kg	J
50-32-8	Benzo(a)pyrene	56.4	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	71.2	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	39.1	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	23.4	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	15.7	110	13	ug/kg	J
218-01-9	Chrysene	54.4	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

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## Report of Analysis

<b>Client Sample ID:</b>	RP1-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-13	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	39.5	280	10	ug/kg	J
206-44-0	Fluoranthene	120	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	30.6	110	12	ug/kg	J
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	138	110	15	ug/kg	
129-00-0	Pyrene	103	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	86%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP1-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-13 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 85.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6200	ug/kg	JN
	Total TIC, Semi-Volatile		6200	ug/kg	J

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J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.37  
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# Report of Analysis

<b>Client Sample ID:</b> RP1-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.96	0.14	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.1	0.96	0.20	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	109	4.8	0.069	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.55	0.38	0.023	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.048 B	0.38	0.040	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	20800	480	6.0	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	15.0	0.96	0.091	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	8.5	4.8	0.045	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	16.3	2.4	0.53	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	18700	9.6	0.83	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	13.0	0.96	0.16	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	13600	480	4.9	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	494	1.4	0.038	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.021 B	0.037	0.0082	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	17.7	3.8	0.042	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	811	480	8.2	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 B	0.96	0.33	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.48	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2390	480	3.2	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.19 B	0.96	0.13	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	29.4	0.96	0.13	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	35.9	1.9	0.15	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16883
- (3) Prep QC Batch: MP22656
- (4) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-13 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 85.1
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.1		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	7.8		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.37  
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## Report of Analysis

<b>Client Sample ID:</b> RP1-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-13A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 85.1
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0069 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.87	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0014 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.026 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.40			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	13.3			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.022 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.020 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-13B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.039		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.54		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0038 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0018 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.043 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	122		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.38		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.3		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00017 B		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.13		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.45		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL





## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-14	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.97	ug/kg	
1330-20-7	Xylene (total)	6.4	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	88%	70-130%
2037-26-5	Toluene-D8	71%	72%	70-130%
460-00-4	4-Bromofluorobenzene	128%	127%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	35	ug/kg	JN
109-66-0	Pentane	2.41	20	ug/kg	JN
287-23-0	Cyclobutane	3.82	5	ug/kg	JN
110-54-3	Hexane	4.22	7.3	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	4.8	ug/kg	JN
142-82-5	Heptane	7.53	3.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	6.6	ug/kg	JN
98-82-8	Benzene, (1-methylethyl)-	12.53	3.5	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	5.1	ug/kg	JN
7642-15-1	4-Octene, (Z)-	13.43	2.5	ug/kg	JN
	Total TIC, Volatile		93	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-14	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18114.D	5	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	79	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	73	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	68	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-14	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	65	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	85.2	550	75	ug/kg	J
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	69	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	ND	550	74	ug/kg	
129-00-0	Pyrene	72.6	550	64	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	57%		30-130%
4165-62-2	Phenol-d5	55%		30-130%
118-79-6	2,4,6-Tribromophenol	63%		30-130%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	70%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	4600	ug/kg	JN
	Total TIC, Semi-Volatile		4600	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
4

# Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-14	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.5	0.88	0.18	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.3	4.4	0.064	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.17 B	0.35	0.021	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.037 U	0.35	0.037	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	129000	4400	56	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	10.7	0.88	0.084	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.2 B	4.4	0.042	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	10.8	2.2	0.49	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	8440	8.8	0.77	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	23.7	0.88	0.15	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	71000	440	4.5	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	360	1.3	0.035	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0078 U	0.035	0.0078	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	8.9	3.5	0.039	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	622	440	7.6	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1320	440	2.9	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.24 B	0.88	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.1	0.88	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	28.7	1.8	0.14	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-14		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL		

4.40  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.7		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-14A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0041 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.62	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0019 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.021 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.12			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0019 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.2			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.021 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.035 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-14B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.029		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.31 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0024 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00080 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.072		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.029 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.093		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	75.5		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00011 B		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.083		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.31		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.42  
4

## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28792.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2 <sup>a</sup>	V28809.D	1	03/19/14	AMY	n/a	n/a	MSV1080

Run #	Initial Weight	Final Volume
Run #1	5.47 g	5.0 ml
Run #2	4.84 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	67.8	10	2.8	ug/kg	
71-43-2	Benzene	3.0	0.51	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	10.5	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.1	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.77	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.27	ug/kg	
100-41-4	Ethylbenzene	2.0	2.0	0.70	ug/kg	
591-78-6	2-Hexanone	ND	10	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.55	ug/kg	
75-09-2	Methylene chloride	2.9	2.0	0.54	ug/kg	
100-42-5	Styrene	ND	5.1	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	6.0	5.1	0.21	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	5.5	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%	87%	70-130%
2037-26-5	Toluene-D8	73%	74%	70-130%
460-00-4	4-Bromofluorobenzene	123%	123%	70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	32	ug/kg	JN
109-66-0	Pentane	2.42	22	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.83	4.9	ug/kg	JN
110-54-3	Hexane	4.23	8.2	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	5.30	5.1	ug/kg	JN
142-82-5	Heptane	7.53	3.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	7.3	ug/kg	JN
66-25-1	Hexanal	10.46	2.3	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.53	2.7	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	12.61	2	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	4.5	ug/kg	JN
	Total TIC, Volatile		94.6	ug/kg	J

(a) Confirmation run.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18115.D	5	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	78	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	72	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	77	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	540	73	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	ND	540	70	ug/kg	
50-32-8	Benzo(a)pyrene	ND	540	58	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	540	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	540	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	540	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	69	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	74	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	540	64	ug/kg	
218-01-9	Chrysene	ND	540	67	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	83	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	98	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	83	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	72	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	65	ug/kg	
132-64-9	Dibenzofuran	ND	540	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	68	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	79	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	152	540	74	ug/kg	J
86-73-7	Fluorene	ND	540	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	79	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	60	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	540	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	78	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	540	74	ug/kg	
129-00-0	Pyrene	115	540	64	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		30-130%
4165-62-2	Phenol-d5	51%		30-130%
118-79-6	2,4,6-Tribromophenol	57%		30-130%
4165-60-0	Nitrobenzene-d5	55%		30-130%
321-60-8	2-Fluorobiphenyl	60%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	70%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	4400	ug/kg	JN
	Total TIC, Semi-Volatile		4400	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
4

# Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.5	0.88	0.18	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	38.3	4.4	0.064	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.23 B	0.35	0.021	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.088 B	0.35	0.037	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	84700	4400	55	mg/kg	10	03/13/14	03/14/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	9.8	0.88	0.084	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5	4.4	0.041	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.1	2.2	0.49	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10600	8.8	0.77	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	27.4	0.88	0.15	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	45200	440	4.5	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	338	1.3	0.035	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.036	0.0079	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.9	3.5	0.039	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	708	440	7.5	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1520	440	2.9	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.25 B	0.88	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	19.2	0.88	0.12	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	35.7	1.8	0.14	mg/kg	1	03/13/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16859
- (2) Instrument QC Batch: MA16872
- (3) Instrument QC Batch: MA16883
- (4) Prep QC Batch: MP22656
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28737-15 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.1
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.1		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	7.9		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.43  
4



# Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-15A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0050 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.53	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.021 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.092 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	4.8			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.022 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0051 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.056 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RP1-2(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-15B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.027		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.32 B		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0021 B		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.064		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.027 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.088		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	69.9		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.96		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.076		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.28		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.45  
4







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

13910 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.303641991 Longitude: -88.468607302  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.303641991 Longitude: -88.468607302

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS RE12-1 AND RE12-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-64. SEE FIGURE 3-12 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28687

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G  
Printed Name:

  
 \_\_\_\_\_  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/27/14  
 \_\_\_\_\_  
 Date:



**Summary Table of ISGS Site No. 2792-64**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE12-1(0.5-1.5)-030414	RE12-2(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	
Location ID	RE12-1	RE12-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.1	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	0.45 J	1.2	30
Ethylbenzene	ND	1 J	13000
Methylene chloride	1.6 J	0.9 J	20
Toluene	0.6 J	2.6 J	12000
Xylene (Total)	0.42 J	1.7 J	5600
<b>SVOCs (ug/kg)</b>			
bis(2-Ethylhexyl)phthalate	11.9 J	15 J	46000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	8.8	6.6	11.3 / 13
Barium, Total	118	86.9	1500
Beryllium, Total	0.6	0.52	22
Cadmium, Total	0.095 J	0.081 J	5.2
Calcium, Total	19700	29400	---
Chromium, Total	17.3 J	15.9 J	21
Cobalt, Total	10.9	8.6	20
Copper, Total	16	16	2900
Iron, Total	19100	16300	15000 / 15900
Lead, Total	18.5	11.1	107
Magnesium, Total	12600	17100	325000
Manganese, Total	583 J	522 J	630 / 636
Mercury, Total	0.032 J	0.028 J	0.89
Nickel, Total	17	17.4	100
Potassium, Total	847	884	---
Sodium, Total	2120	2280	---
Thallium, Total	0.15 J	0.18 J	2.6
Vanadium, Total	34.4	30.7	550
Zinc, Total	41.1 J	39.5 J	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	0.0042 J	0.0062 J	0.05
Barium, TCLP	1.1	1	2
Cadmium, TCLP	0.0005 J	0.001 J	0.005
Cobalt, TCLP	0.033 J	0.026 J	1
Copper, TCLP	0.013 J	0.011 J	0.65
Iron, TCLP	0.17	0.58	5
Lead, TCLP	ND	0.0023 J	0.0075
Manganese, TCLP	8.4	13.1	0.15
Nickel, TCLP	0.013 J	0.021 J	0.1
Selenium, TCLP	0.01 J	0.01 J	0.05
Zinc, TCLP	0.011 J	0.022 J	5

**Summary Table of ISGS Site No. 2792-64**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE12-1(0.5-1.5)-030414	RE12-2(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	
Location ID	RE12-1	RE12-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.048	0.082	0.05
Barium, SPLP	1.4	1.5	2
Beryllium, SPLP	0.0066	0.0081	0.004
Cadmium, SPLP	0.0022 J	0.0022 J	0.005
Chromium, SPLP	0.19	0.22	0.1
Cobalt, SPLP	0.072	0.086	1
Copper, SPLP	0.18	0.26	0.65
Iron, SPLP	174 J	259 J	5
Lead, SPLP	0.096	0.13	0.0075
Manganese, SPLP	3.7	3.9	0.15
Mercury, SPLP	0.00072	0.00059	0.002
Nickel, SPLP	0.15	0.21	0.1
Selenium, SPLP	0.011 J	0.011 J	0.05
Zinc, SPLP	0.46 J	0.55 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28687

Sampling Date: 03/04/14

Report to:

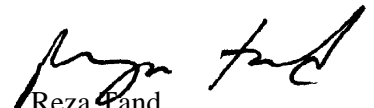
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **279**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	RE12-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.4
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63734.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.90 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	0.45	0.60	0.40	ug/kg	J
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.72	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.7	ug/kg	
75-15-0	Carbon disulfide	ND	6.0	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.50	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.50	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	2.4	0.82	ug/kg	
591-78-6	2-Hexanone	ND	12	0.91	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.0	0.64	ug/kg	
75-09-2	Methylene chloride	1.6	2.4	0.63	ug/kg	J
100-42-5	Styrene	ND	6.0	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	0.60	6.0	0.25	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE12-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.69	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	0.42	2.4	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-19-4	Cyclopropane	6.10	4.9	ug/kg	JN
	Total TIC, Volatile		4.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE12-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-3	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71678.D	1	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	95	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	73	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	30	ug/kg	
88-75-5	2-Nitrophenol	ND	580	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE12-1(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-3		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 85.4
<b>Method:</b> SW846 8270D SW846 3546		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.1	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	11.9	290	11	ug/kg	J
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	15	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	76%		30-130%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b> RE12-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	82%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	4800	ug/kg	JN
	Total TIC, Semi-Volatile		4800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

# Report of Analysis

<b>Client Sample ID:</b> RE12-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	8.8	0.95	0.20	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	118	4.8	0.069	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.60	0.38	0.023	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.095 B	0.38	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	19700	480	6.0	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	17.3	0.95	0.090	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	10.9	4.8	0.045	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	16.0	2.4	0.53	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	19100	9.5	0.83	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	18.5	0.95	0.16	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	12600	480	4.9	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	583	1.4	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.032 B	0.037	0.0082	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	17.0	3.8	0.042	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	847	480	8.1	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 U	0.95	0.33	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.48	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2120	480	3.2	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.15 B	0.95	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	34.4	0.95	0.13	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	41.1	1.9	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16855
- (3) Prep QC Batch: MP22610
- (4) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
 4

## Report of Analysis

<b>Client Sample ID:</b> RE12-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-3	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.4		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.7  
4



## Report of Analysis

<b>Client Sample ID:</b> RE12-1(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-3A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 85.4
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0042 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	1.1	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00050 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.033 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.013 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.17			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	8.4			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.011 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.8  
4

## Report of Analysis

<b>Client Sample ID:</b> RE12-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-3B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.048		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.4		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0066		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0022 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.19		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.072		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.18		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	174		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.096		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.7		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00072		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.15		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.011 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.46		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

4.9  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE12-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-4	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63735.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.36 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.0	ug/kg	
71-43-2	Benzene	1.2	0.54	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.4	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.81	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	1.0	2.1	0.74	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.4	0.58	ug/kg	
75-09-2	Methylene chloride	0.90	2.1	0.57	ug/kg	J
100-42-5	Styrene	ND	5.4	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.34	ug/kg	
108-88-3	Toluene	2.6	5.4	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE12-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-4	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.98	ug/kg	
1330-20-7	Xylene (total)	1.7	2.1	0.23	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
110-54-3	Hexane	8.46	7.8	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.9	ug/kg	JN
	Total TIC, Volatile		14.7	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE12-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-4	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71679.D	1	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	93	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	570	71	ug/kg	
95-48-7	2-Methylphenol	ND	570	23	ug/kg	
106-44-5	4-Methylphenol	ND	570	29	ug/kg	
88-75-5	2-Nitrophenol	ND	570	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	570	40	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	15	ug/kg	
106-47-8	4-Chloroaniline	ND	570	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE12-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-4	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	14	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	8.9	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	15.0	290	11	ug/kg	J
206-44-0	Fluoranthene	ND	110	16	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	570	14	ug/kg	
99-09-2	3-Nitroaniline	ND	570	31	ug/kg	
100-01-6	4-Nitroaniline	ND	570	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	290	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	77%		30-130%
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE12-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	5300	ug/kg	JN
	Total TIC, Semi-Volatile		5300	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> RE12-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.6	0.90	0.19	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	86.9	4.5	0.065	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.52	0.36	0.021	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.081 B	0.36	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	29400	450	5.6	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	15.9	0.90	0.085	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	8.6	4.5	0.042	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	16.0	2.2	0.50	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	16300	9.0	0.78	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	11.1	0.90	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	17100	450	4.6	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	522	1.3	0.036	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.028 B	0.035	0.0078	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	17.4	3.6	0.039	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	884	450	7.7	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2280	450	3.0	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.18 B	0.90	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	30.7	0.90	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	39.5	1.8	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16855
- (3) Prep QC Batch: MP22610
- (4) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> RE12-2(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28687-4 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 87.1
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.1		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.4		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> RE12-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-4A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0062 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	1.0	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.026 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.58			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0023 B	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	13.1			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.021 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.022 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> RE12-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-4B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.082		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.5		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0081		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0022 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.22		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.086		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.26		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	259		0.50	0.10	mg/l	5	03/11/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Lead	0.13		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.9		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00059		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.21		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.011 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.55		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Instrument QC Batch: MA16875
- (4) Prep QC Batch: MP22638
- (5) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
1270 to 1275 Amber Court, 903 to 907 Lorr Drive, 1013 to 1029 Winslow Avenue, AND 1333 to 1363 Winslow Circle

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.300784659 Longitude: -88.463766118  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

EPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.300784659 Longitude: -88.463766118

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS RE13-1, RE13-2, RE13-3, AND RE13-4 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-65. SEE FIGURE 3-13 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28684 AND MC28687

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-65**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE13-1(0.5-1.5)-030414	RE13-2(0.5-1.5)-030414	RE13-3(0.5-1.5)-030414	RE13-4(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/4/2014	
Location ID	RE13-1	RE13-2	RE13-3	RE13-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.7	8.7	8.8	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Benzene	1.4	2.8	1.3	1.3	30
Ethylbenzene	ND	2 J	ND	ND	13000
Methylene chloride	1.1 J	2.1 J	2.3	1.6 J	20
Toluene	3.3 J	6.5	1.3 J	2.5 J	12000
Xylene (Total)	2.2 J	4.2	0.47 J	1.7 J	5600
<b>SVOCs (ug/kg)</b>					
bis(2-Ethylhexyl)phthalate	ND	ND	ND	18.5 J	46000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	6.1	8.5	6	7.3	11.3 / 13
Barium, Total	57.2	75.4	33.8	64.4	1500
Beryllium, Total	0.38	0.57	0.32 J	0.5	22
Cadmium, Total	0.093 J	0.085 J	0.079 J	0.082 J	5.2
Calcium, Total	23400	20500	63400 J	37400 J	---
Chromium, Total	13.8 J	20 J	12.3 J	14.8 J	21
Cobalt, Total	7.1	9.8	6.6	8.3	20
Copper, Total	12.9	15.1	15.7	17.4	2900
Iron, Total	15200 J	20100 J	14200 J	17400 J	15000 / 15900
Lead, Total	17	11.8	15.1	11.1	107
Magnesium, Total	13400	11500	30100 J	23900 J	325000
Manganese, Total	425 J	399 J	348 J	395 J	630 / 636
Mercury, Total	ND	0.021 J	ND	0.016 J	0.89
Nickel, Total	12.1	18.4	14.6	18.2	100
Potassium, Total	746	1090	1170	924	---
Selenium, Total	0.57 J	0.62 J	ND	ND	1.3
Silver, Total	0.52	0.57	0.5	ND	4.4
Sodium, Total	3040	2750	1820	2290	---
Thallium, Total	0.25 J	0.32 J	0.28 J	0.24 J	2.6
Vanadium, Total	29.7 J	36 J	22.7 J	27.6	550
Zinc, Total	38.4 J	44.3 J	37.1 J	41.9 J	5100
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	0.0042 J	0.0052 J	ND	0.0031 J	0.05
Barium, TCLP	0.41 J	0.67	0.28 J	0.58	2
Cadmium, TCLP	0.0011 J	0.0009 J	0.0017 J	0.0012 J	0.005
Chromium, TCLP	0.0043 J	ND	0.0016 J	0.002 J	0.1
Cobalt, TCLP	0.024 J	0.024 J	0.0079 J	0.01 J	1
Copper, TCLP	ND	ND	ND	0.031	0.65
Iron, TCLP	0.029 J	0.41	ND	0.071 J	5
Lead, TCLP	ND	ND	0.0018 J	ND	0.0075
Manganese, TCLP	6.4	7	2.1	2.8	0.15
Nickel, TCLP	0.016 J	0.014 J	0.018 J	0.016 J	0.1
Selenium, TCLP	0.0086 J	0.008 J	0.0097 J	0.0097 J	0.05
Zinc, TCLP	0.021 J	0.014 J	0.031 J	0.03 J	5



**Summary Table of ISGS Site No. 2792-65**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RE13-1(0.5-1.5)-030414	RE13-2(0.5-1.5)-030414	RE13-3(0.5-1.5)-030414	RE13-4(0.5-1.5)-030414	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/4/2014	3/4/2014	3/4/2014	3/4/2014	
Location ID	RE13-1	RE13-2	RE13-3	RE13-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.073	0.12	0.037	0.078	0.05
Barium, SPLP	0.58 J	1.1 J	0.23 J	0.78	2
Beryllium, SPLP	0.0042	0.0077	0.0018 J	0.0064	0.004
Cadmium, SPLP	0.0024 J	0.0026 J	0.0015 J	0.0021 J	0.005
Chromium, SPLP	0.15 J	0.23 J	0.063 J	0.18	0.1
Cobalt, SPLP	0.052	0.094	0.023 J	0.07	1
Copper, SPLP	0.17 J	0.25 J	0.089 J	0.24	0.65
Iron, SPLP	148 J	271 J	65.9 J	196 J	5
Lead, SPLP	0.12	0.14	0.1	0.094	0.0075
Manganese, SPLP	3.6	4.3	0.88	2.3	0.15
Mercury, SPLP	0.00026	0.00056	ND	0.00031	0.002
Nickel, SPLP	0.12	0.22	0.065	0.22	0.1
Selenium, SPLP	0.0076 J	0.0095 J	ND	0.011 J	0.05
Zinc, SPLP	0.48	0.6	0.29	0.56 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28684

Sampling Dates: 03/03/14 - 03/04/14

Report to:

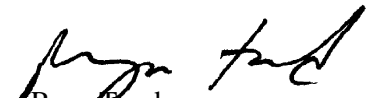
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **313**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b> RE13-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-18	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.77	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	2.2	2.7	0.29	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
109-66-0	Pentane	6.47	12	ug/kg	JN
627-27-0	3-Buten-1-ol	7.83	8.6	ug/kg	JN
110-54-3	Hexane	8.46	7.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8	ug/kg	JN
	Total TIC, Volatile		36.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	RE13-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-18	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37407.D	1	03/12/14	KR	03/05/14	OP37063	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	590	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	590	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	590	96	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	590	73	ug/kg	
95-48-7	2-Methylphenol	ND	590	23	ug/kg	
106-44-5	4-Methylphenol	ND	590	30	ug/kg	
88-75-5	2-Nitrophenol	ND	590	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	590	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	590	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	590	14	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	590	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RE13-1(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-18	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	590	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	590	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.2	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	590	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	590	15	ug/kg	
99-09-2	3-Nitroaniline	ND	590	32	ug/kg	
100-01-6	4-Nitroaniline	ND	590	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE13-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-18	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.9
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	6300	ug/kg	JN
	Total TIC, Semi-Volatile		6300	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RE13-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-18	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.93	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.1	0.93	0.19	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	57.2	4.6	0.067	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.38	0.37	0.022	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.093 B	0.37	0.039	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	23400	460	5.8	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	13.8	0.93	0.088	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	7.1	4.6	0.044	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	12.9	2.3	0.51	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	15200	9.3	0.81	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	17.0	0.93	0.16	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	13400	460	4.7	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	425	1.4	0.037	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0081 U	0.037	0.0081	mg/kg	1	03/11/14	03/12/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.1	3.7	0.041	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	746	460	7.9	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.57 B	0.93	0.32	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.52	0.46	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	3040	460	3.1	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.25 B	0.93	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	29.7	0.93	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	38.4	1.9	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16844
- (3) Prep QC Batch: MP22609
- (4) Prep QC Batch: MP22636

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> RE13-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-18	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.9		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/06/14	MA	SW846 9045D

---

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> RE13-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-18A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0042 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.41 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0043 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.024 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.029 B			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	6.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0086 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.021 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE13-1(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-18B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.073		0.010	0.0029	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.58		0.50	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0024 B		0.0040	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.052		0.050	0.00040	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Iron	148		0.10	0.020	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.6		0.015	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00026		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0076 B		0.025	0.0048	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.48		0.10	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.54  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE13-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-19	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63677.D	1	03/10/14	KD	n/a	n/a	MSM2232
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.54 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.7	ug/kg	
71-43-2	Benzene	2.8	0.65	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.27	ug/kg	
75-25-2	Bromoform	ND	2.6	0.46	ug/kg	
74-83-9	Bromomethane	ND	2.6	0.78	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.0	ug/kg	
75-15-0	Carbon disulfide	ND	6.5	0.17	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.29	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.5	0.99	ug/kg	
67-66-3	Chloroform	ND	2.6	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.5	0.74	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.42	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.6	0.35	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.6	0.42	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.6	0.54	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.6	0.59	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.6	0.54	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.6	0.54	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.55	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.30	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.34	ug/kg	
100-41-4	Ethylbenzene	2.0	2.6	0.90	ug/kg	J
591-78-6	2-Hexanone	ND	13	0.99	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.6	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.5	0.70	ug/kg	
75-09-2	Methylene chloride	2.1	2.6	0.69	ug/kg	J
100-42-5	Styrene	ND	6.5	0.22	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.51	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	0.41	ug/kg	
108-88-3	Toluene	6.5	6.5	0.27	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.28	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE13-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-19	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.75	ug/kg	
79-01-6	Trichloroethene	ND	2.6	0.32	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	1.2	ug/kg	
1330-20-7	Xylene (total)	4.2	2.6	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.11	33	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.10	30	ug/kg	JN
109-66-0	Pentane	6.49	25	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.84	18	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	8.7	ug/kg	JN
110-54-3	Hexane	8.46	17	ug/kg	JN
110-82-7	Cyclohexane	9.17	8.5	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	9.92	11	ug/kg	JN
142-82-5	Heptane	10.51	9.1	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	18	ug/kg	JN
111-65-9	Octane	12.36	8.1	ug/kg	JN
	Total TIC, Volatile		186.4	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.55  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE13-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-19	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37408.D	1	03/12/14	KR	03/05/14	OP37063	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	94	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	72	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	29	ug/kg	
88-75-5	2-Nitrophenol	ND	580	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	40	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	15	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	14	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RE13-2(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-19	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.0	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	14	ug/kg	
99-09-2	3-Nitroaniline	ND	580	31	ug/kg	
100-01-6	4-Nitroaniline	ND	580	14	ug/kg	
91-20-3	Naphthalene	ND	120	18	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	81%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE13-2(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28684-19 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 84.5
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.68	6000	ug/kg JN
	Total TIC, Semi-Volatile		6000	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.55  
4



# Report of Analysis

<b>Client Sample ID:</b> RE13-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-19	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	8.5	0.95	0.20	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	75.4	4.7	0.069	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.57	0.38	0.023	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.085 B	0.38	0.040	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	20500	470	5.9	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	20.0	0.95	0.090	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	9.8	4.7	0.044	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	15.1	2.4	0.53	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	20100	9.5	0.82	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	11.8	0.95	0.16	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	11500	470	4.8	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	399	1.4	0.038	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.021 B	0.036	0.0079	mg/kg	1	03/11/14	03/12/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	18.4	3.8	0.042	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	1090	470	8.1	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.62 B	0.95	0.33	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.57	0.47	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2750	470	3.1	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.32 B	0.95	0.13	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	36.0	0.95	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	44.3	1.9	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16844
- (3) Prep QC Batch: MP22609
- (4) Prep QC Batch: MP22636

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE13-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-19	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.5		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.55  
4

# Report of Analysis

<b>Client Sample ID:</b> RE13-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-19A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0052 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.67	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.024 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.41			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	7.0			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0080 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.014 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE13-2(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-19B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analized By	Method
Arsenic	0.12		0.010	0.0029	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0077		0.0040	0.00025	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0026 B		0.0040	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.23		0.010	0.0014	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.094		0.050	0.00040	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.25		0.025	0.0070	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Iron	271		1.0	0.20	mg/l	10	03/07/14	03/10/14 EAL	SW846 6010C <sup>3</sup>
Lead	0.14		0.010	0.0017	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Manganese	4.3		0.015	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00056		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.22		0.040	0.00057	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0095 B		0.025	0.0048	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>4</sup>
Zinc	0.60		0.10	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16840
- (4) Instrument QC Batch: MA16847
- (5) Prep QC Batch: MP22614
- (6) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)      B = Indicates a result > = MDL but < RL

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# Report of Analysis

<b>Client Sample ID:</b> RE13-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28684-20	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63678.D	1	03/10/14	KD	n/a	n/a	MSM2232

Run #1	Initial Weight	Final Volume
Run #2	6.46 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	8.7	2.4	ug/kg	
71-43-2	Benzene	1.3	0.44	0.29	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	0.18	ug/kg	
75-25-2	Bromoform	ND	1.7	0.31	ug/kg	
74-83-9	Bromomethane	ND	1.7	0.52	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.7	2.7	ug/kg	
75-15-0	Carbon disulfide	ND	4.4	0.11	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.7	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	0.14	ug/kg	
75-00-3	Chloroethane	ND	4.4	0.66	ug/kg	
67-66-3	Chloroform	ND	1.7	0.15	ug/kg	
74-87-3	Chloromethane	ND	4.4	0.49	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	0.28	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	0.23	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	0.28	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	0.36	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	0.39	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	0.36	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.7	0.36	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	0.37	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	0.20	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	0.23	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	0.60	ug/kg	
591-78-6	2-Hexanone	ND	8.7	0.66	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.4	0.47	ug/kg	
75-09-2	Methylene chloride	2.3	1.7	0.46	ug/kg	
100-42-5	Styrene	ND	4.4	0.15	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	0.34	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	0.27	ug/kg	
108-88-3	Toluene	1.3	4.4	0.18	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.7	0.19	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.58  
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## Report of Analysis

<b>Client Sample ID:</b> RE13-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-20	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.7	0.50	ug/kg	
79-01-6	Trichloroethene	ND	1.7	0.21	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	0.79	ug/kg	
1330-20-7	Xylene (total)	0.47	1.7	0.19	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.09	11	ug/kg	JN
109-66-0	Pentane	6.48	11	ug/kg	JN
2658-24-4	Aziridine, 2,2-dimethyl-	7.83	4.9	ug/kg	JN
	Total TIC, Volatile		26.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.58  
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# Report of Analysis

<b>Client Sample ID:</b> RE13-3(0.5-1.5)-030414	
<b>Lab Sample ID:</b> MC28684-20	<b>Date Sampled:</b> 03/04/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37409.D	5	03/12/14	KR	03/05/14	OP37063	MSR1381
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	67	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	60	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	84	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	RE13-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-20	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	72	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	74	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	77	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	ND	550	76	ug/kg	
86-73-7	Fluorene	ND	550	74	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	87	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	89	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	84	ug/kg	
85-01-8	Phenanthrene	ND	550	75	ug/kg	
129-00-0	Pyrene	ND	550	65	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		30-130%
4165-62-2	Phenol-d5	64%		30-130%
118-79-6	2,4,6-Tribromophenol	55%		30-130%
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	67%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RE13-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-20	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	76%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5000	ug/kg	JN
	Total TIC, Semi-Volatile		5000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> RE13-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-20	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	6.0	0.88	0.18	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	33.8	4.4	0.064	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.32 B	0.35	0.021	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.079 B	0.35	0.037	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	63400	4400	55	mg/kg	10	03/07/14	03/11/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	12.3	0.88	0.083	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	6.6	4.4	0.041	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.7	2.2	0.49	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14200	8.8	0.76	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	15.1	0.88	0.15	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	30100	440	4.5	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	348	1.3	0.035	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0075 U	0.034	0.0075	mg/kg	1	03/11/14	03/12/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	14.6	3.5	0.039	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	1170	440	7.5	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.30 U	0.88	0.30	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.50	0.44	0.11	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1820	440	2.9	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.28 B	0.88	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.7	0.88	0.12	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	37.1	1.8	0.14	mg/kg	1	03/07/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16844
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22609
- (5) Prep QC Batch: MP22636

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RE13-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28684-20 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.0
--	--

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.8		su	1	03/06/14	MA	SW846 9045D

---

RL = Reporting Limit

4.58  
4

## Report of Analysis

<b>Client Sample ID:</b> RE13-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28684-20A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.0
---	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.28 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0016 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0079 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0018 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	2.1			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0097 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.031 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.59  
4

## Report of Analysis

<b>Client Sample ID:</b> RE13-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-20B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.037		0.010	0.0029	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.23 B		0.50	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0018 B		0.0040	0.00025	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0015 B		0.0040	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.063		0.010	0.0014	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.023 B		0.050	0.00040	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.089		0.025	0.0070	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Iron	65.9		0.10	0.020	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.10		0.010	0.0017	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.88		0.015	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.065		0.040	0.00057	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.29		0.10	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.60  
4



FED-EX Tracking #	Batch Order Control #
Accutest Quote #	Accutest Job # <b>MC28684</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes
Company Name <b>Western Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>										<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SVOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCUP/SPLP Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">pH</div> </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <b>750 E. Banker Ct Ste 500</b>		Street: <b>Idot-048 McHenry County</b>																				
City <b>Keokuk Hills IL</b>		Billing Information (if different from Report to)																				
State <b>IL</b>		Company Name																				
Zip <b>60081</b>		Street Address																				
Project Contact <b>S. Babusankaran</b>		City																				
E-mail <b>sbabusankaran@westernsolutions.com</b>		State																				
Phone # <b>847-918-4018</b>		Zip																				
Fax # <b>-4055</b>		Client PO#																				
Sampler(s) Name(s) <b>F. O. H. O. S. M. A. 847-918-4130</b>		Project Manager <b>Watt Maxwell</b>																				
Accutest Sample #	Field ID / Point of Collection	MECH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY				
								MC	NUOH	HNH3	HNH2	HNH4	DI Water	MEOH	ENCORE	Biofilm						
-13	RL2-1(0.5-1.5)-030314		3-3-14	14:30	DS	So	3															
-14	RL2-2(0.5-1.5)-030314		3-3-14	14:50	DS	So	3															
-15	RL2-3(0.5-1.5)-030414		3-4-14	8:00	DS	So	3															
-16	RL2-4(0.5-1.5)-030414		3-4-14	8:25	DS	So	3															
-17	RL2-4(0.5-1.5)-030414		3-4-14	8:25	DS	So	3															
-18	RE13-1(0.5-1.5)-030414		3-4-14	8:45	DS	So	3															
-19	RE13-2(0.5-1.5)-030414		3-4-14	9:05	DS	So	3															
-20	RE13-3(0.5-1.5)-030414		3-4-14	9:25	DS	So	3															

Data Deliverable Information		Comments / Special Instructions	
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM) / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary	

Sample Custody must be documented below each time samples change possession, including courier delivery.				CHICAGO SC	
Relinquished by Sampler: <b>David Hua</b>	Date Time: <b>3-4-14/15:15</b>	Received By: <i>[Signature]</i>	Relinquished By: <b>RECEIVED</b>	Date Time: <b>3/5/14 9:30</b>	Received By: <i>[Signature]</i>
Relinquished by Sampler: <b>3</b>	Date Time:	Received By: <b>3</b>	Relinquished By:	Date Time:	Received By: <b>4</b>
Relinquished by: <b>5</b>	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> Not Intact	<input type="checkbox"/> On Ice    Cooler Temp.

**MC28684: Chain of Custody**

**Page 2 of 3**

5.1  
5

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28687

Sampling Date: 03/04/14

Report to:

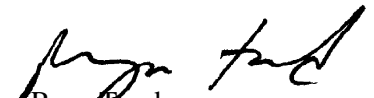
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **279**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b>	RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-1	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63732.D	1	03/11/14	KD	n/a	n/a	MSM2234
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.93 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.2	ug/kg	
71-43-2	Benzene	1.3	0.57	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.85	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.78	ug/kg	
591-78-6	2-Hexanone	ND	11	0.86	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.61	ug/kg	
75-09-2	Methylene chloride	1.6	2.3	0.60	ug/kg	J
100-42-5	Styrene	ND	5.7	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.35	ug/kg	
108-88-3	Toluene	2.5	5.7	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-1	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.65	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	1.7	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
109-66-0	Pentane	6.48	9.9	ug/kg	JN
	Total TIC, Volatile		9.9	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b>	RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-1	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71676.D	1	03/10/14	KR	03/05/14	OP37066	MSF3192
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28687-1	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	18.5	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	75%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-1	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	90%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.64	5000	ug/kg JN
	Total TIC, Semi-Volatile		5000	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-1	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.3	0.91	0.19	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	64.4	4.5	0.066	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.50	0.36	0.022	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.082 B	0.36	0.038	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	37400	450	5.7	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	14.8	0.91	0.086	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	8.3	4.5	0.043	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	17.4	2.3	0.50	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	17400	9.1	0.79	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	11.1	0.91	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	23900	450	4.6	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	395	1.4	0.036	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.016 B	0.035	0.0078	mg/kg	1	03/13/14	03/13/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	18.2	3.6	0.040	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	924	450	7.8	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.91	0.31	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2290	450	3.0	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.24 B	0.91	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	27.6	0.91	0.12	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	41.9	1.8	0.15	mg/kg	1	03/07/14	03/11/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16846
- (2) Instrument QC Batch: MA16855
- (3) Prep QC Batch: MP22610
- (4) Prep QC Batch: MP22651

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.1  
 4

## Report of Analysis

<b>Client Sample ID:</b> RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-1	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.7		%	1	03/07/14	MC	SM21 2540 B MOD.
pH	8.7		su	1	03/06/14	MA	SW846 9045D

---

RL = Reporting Limit

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-1A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0031 B	D004	5.0	0.010	0.0029	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Barium	0.58	D005	100	0.50	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0020 B	D007	5.0	0.010	0.0014	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.010 B			0.050	0.00040	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Copper	0.031			0.025	0.0070	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Iron	0.071 B			0.10	0.020	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.8			0.015	0.00081	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/12/14	03/13/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0097 B	D010	1.0	0.025	0.0048	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.030 B			0.10	0.00050	mg/l	1	03/12/14	03/13/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16850
- (2) Instrument QC Batch: MA16865
- (3) Prep QC Batch: MP22644
- (4) Prep QC Batch: MP22648

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.2  
4



## Report of Analysis

<b>Client Sample ID:</b> RE13-4(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28687-1B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.078		0.010	0.0029	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.78		0.50	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0064		0.0040	0.00025	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0021 B		0.0040	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.18		0.010	0.0014	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.070		0.050	0.00040	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.24		0.025	0.0070	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Iron	196		0.10	0.020	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.094		0.010	0.0017	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.3		0.015	0.00081	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00031		0.00020	0.00010	mg/l	1	03/12/14	03/12/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.22		0.040	0.00057	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.011 B		0.025	0.0048	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.56		0.10	0.00050	mg/l	1	03/11/14	03/14/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16848
- (2) Instrument QC Batch: MA16871
- (3) Prep QC Batch: MP22638
- (4) Prep QC Batch: MP22642

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.3  
4

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest Job # <b>MC28687</b>	
<b>Client / Reporting Information</b>		<b>Project Information</b>	
Company Name <b>Western Solutions, Inc.</b>		Project Name <b>DOT-048 McHenry County</b>	
Street Address <b>750 E Dunbar Ct Ste 500</b>		Street	
City State Zip <b>Vernon Hills IL 60061</b>		Billing Information (if different from Report to)	
Project Contact <b>S. Babusukuma</b>		Company Name	
Phone # Fax # <b>847-916-4018</b>		Street Address	
Sampler(s) Name(s) <b>David Sena</b>		City State Zip	
Phone # <b>574-261-5413</b>		Attention: PCR	
Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Accutest Sample # <b>MC28687</b> Field ID / Point of Collection MECH/ID / Vial # Date Time Sampled by Matrix # of bottles Number of preserved bottles HCl NACH NAGS H2SO4 NONE DI Water MEOH ENCORE Biohazard <b>VOCs</b> <b>SVOCs</b> <b>Total Metals</b> <b>TCCP/SCP Metals</b> <b>PH</b>		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank  LAB USE ONLY	
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary	
Relinquished by Sampler: <b>David Sena</b> Date Time: <b>3-4-14/15:15</b>		Received By: <b>[Signature]</b> Date Time: <b>3/4/14 15:00</b>	
Relinquished by Sampler: <b>3</b> Date Time: <b>3</b>		Relinquished By: <b>4</b> Date Time: <b>3/5/14 9:30</b>	
Relinquished by: <b>5</b> Date Time: <b>5</b>		Relinquished By: <b>4</b> Date Time: <b>4</b>	
Custody Seal # <input type="checkbox"/> Intact <input type="checkbox"/> Not intact		Preserved where applicable <input type="checkbox"/> On Ice <input checked="" type="checkbox"/> Cooler Temp. <b>6.0°C</b>	

**MC28687: Chain of Custody**

**Page 1 of 3**





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
13606 Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.301128093 Longitude: -88.464771227  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.301128093 Longitude: -88.464771227

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS WT-1, WT-2, WT-3, WT-4 AND WT-5 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-66. SEE FIGURE 3-13 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28737

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-66**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	WT-1(0.5-1.5)-030614	WT-2(0.5-1.5)-030614	WT-3(0.5-1.5)-030614	WT-4(0.5-1.5)-030614	WT-5(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	WT-1	WT-2	WT-3	WT-4	WT-5	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter						
Laboratory pH	8.1	8.2	8.2	8.2	8.2	<6.25,>9.0
<b>VOCs (ug/kg)</b>						
Acetone	95.9 J	22.1 J	101 J	125 J	54.5 J	25000
Benzene	3.1	3.3	2.9	2.9	2.8	30
Carbon disulfide	1.1 J	ND	0.92 J	2.1 J	ND	9000
Ethylbenzene	2 J	2.2 J	1.8 J	1.6 J	2 J	13000
Methyl ethyl ketone	16.8	ND	15.4	22.5	9.2 J	17000
Methylene chloride	2.6	2.5	3.6	2.2 J	2.3	20
Toluene	6.2	6.8	5.6 J	5.2 J	6.3	12000
Xylene (Total)	5.1	5.1	4.6	3.6	4.8	5600
<b>SVOCs (ug/kg)</b>						
Benzo(a)anthracene	ND	ND	284 J	42.4 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	ND	ND	332 J	37.6 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	ND	523 J	52.2 J	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	ND	343 J	25.5 J	ND	2300000
Benzo(k)fluoranthene	ND	ND	154 J	21.5 J	ND	9000
bis(2-Ethylhexyl)phthalate	ND	34.8 J	ND	101 J	ND	46000
Chrysene	ND	ND	246 J	29.1 J	ND	88000
Di-N-Octyl phthalate	ND	ND	ND	156 J	ND	1600000
Fluoranthene	ND	ND	522 J	53.6 J	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	ND	194 J	23.7 J	ND	900 / 900 / 1600
Phenanthrene	ND	ND	172 J	19.6 J	ND	210000
Pyrene	ND	ND	445 J	50.5 J	ND	2300000
<b>Total Metals (mg/kg)</b>						
Arsenic, Total	6.2	7	2.4	8	6	11.3 / 13
Barium, Total	71.2	45.1	75	49.1	53.9	1500
Beryllium, Total	0.44	0.49	0.17 J	0.29 J	0.36	22
Cadmium, Total	0.075 J	0.092 J	0.12 J	0.064 J	0.062 J	5.2
Calcium, Total	43600 J	88100 J	121000 J	72000 J	51700 J	---
Chromium, Total	13.7	15.5	15.7	9.4	11.7	21
Cobalt, Total	7.1	8.5	2.8 J	5.1	6.6	20
Copper, Total	14.8	17.5	14.1	12.2	14.1	2900
Iron, Total	15200	17400	8440	13900	14700	15000 / 15900
Lead, Total	9.1	9.3	16.8	8	7.9	107
Magnesium, Total	24400	40100	64400	33700	28600	325000
Manganese, Total	461 J	383 J	281 J	455 J	413 J	630 / 636
Mercury, Total	0.013 J	ND	0.011 J	0.0087 J	0.0084 J	0.89
Nickel, Total	16.2	21.5	11.7	11.7	15.5	100
Potassium, Total	876	1660	465	673	849	---
Selenium, Total	0.72 J	0.45 J	ND	0.46 J	0.41 J	1.3
Silver, Total	0.2 J	0.18 J	ND	0.15 J	0.15 J	4.4
Sodium, Total	1690 J	1310 J	2040 J	1280 J	2730 J	---
Thallium, Total	0.23 J	0.37 J	0.32 J	0.13 J	0.29 J	2.6
Vanadium, Total	25.1	20.4	22.7	18.4	22.6	550
Zinc, Total	37.5 J	41.3 J	38 J	33.1 J	36.4 J	5100

**Summary Table of ISGS Site No. 2792-66**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	WT-1(0.5-1.5)-030614	WT-2(0.5-1.5)-030614	WT-3(0.5-1.5)-030614	WT-4(0.5-1.5)-030614	WT-5(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	WT-1	WT-2	WT-3	WT-4	WT-5	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter						
<b>TCLP Metals (mg/l)</b>						
Arsenic, TCLP	0.0078 J	0.0052 J	0.0039 J	0.005 J	0.0048 J	0.05
Barium, TCLP	0.95	0.79	0.46 J	0.65	0.57	2
Cadmium, TCLP	0.0009 J	0.0024 J	0.002 J	0.0011 J	0.0012 J	0.005
Cobalt, TCLP	0.025 J	0.062	0.014 J	0.017 J	0.023 J	1
Copper, TCLP	ND	0.081	ND	ND	ND	0.65
Iron, TCLP	0.63 J	0.49 J	0.066 J	0.17 J	0.14 J	5
Lead, TCLP	0.0026 J	0.0079 J	0.004 J	ND	ND	0.0075
Manganese, TCLP	7.8	6.4 J	3.1	6.1	6.5	0.15
Nickel, TCLP	0.023 J	0.066	0.015 J	0.017 J	0.019 J	0.1
Selenium, TCLP	0.0053 J	0.0053 J	0.007 J	0.0053 J	0.0053 J	0.05
Zinc, TCLP	0.02 J	0.06 J	0.08 J	0.018 J	0.0087 J	5
<b>SPLP Metals (mg/l)</b>						
Arsenic, SPLP	0.057	0.08	0.011	0.054	0.071	0.05
Barium, SPLP	0.89	0.54	0.24 J	1.1	0.81	2
Beryllium, SPLP	0.0056	0.0063	0.0017 J	0.0075	0.0081	0.004
Cadmium, SPLP	ND	ND	0.0009 J	0.0017 J	0.0009 J	0.005
Chromium, SPLP	0.16	0.16	0.059	0.19	0.19	0.1
Cobalt, SPLP	0.059	0.062	0.017 J	0.063	0.07	1
Copper, SPLP	0.19	0.22	0.09	0.21	0.2	0.65
Iron, SPLP	159 J	183 J	45.9 J	189 J	200 J	5
Lead, SPLP	0.089	0.07	0.11	0.17	0.089	0.0075
Manganese, SPLP	2.2	1.1	0.55	2.3	2.8	0.15
Mercury, SPLP	0.00026	0.00021	ND	0.00038	0.00045	0.002
Nickel, SPLP	0.16	0.23	0.043	0.18	0.21	0.1
Selenium, SPLP	0.0061 J	ND	ND	0.005 J	0.006 J	0.05
Silver, SPLP	0.0023 J	ND	ND	ND	ND	0.05
Zinc, SPLP	0.43	0.5	0.35	0.57	0.51	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28737

Sampling Date: 03/06/14

Report to:

Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **319**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



### Report of Analysis

<b>Client Sample ID:</b> WT-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-16	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28793.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.91 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	95.9	12	3.3	ug/kg	
71-43-2	Benzene	3.1	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	16.8	12	3.6	ug/kg	
75-15-0	Carbon disulfide	1.1	5.8	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.31	ug/kg	
100-41-4	Ethylbenzene	2.0	2.3	0.80	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.63	ug/kg	
75-09-2	Methylene chloride	2.6	2.3	0.62	ug/kg	
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	6.2	5.8	0.24	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WT-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-16	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	5.1	2.3	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	79%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.18	34	ug/kg	JN
109-66-0	Pentane	2.40	23	ug/kg	JN
96-14-0	Pentane, 3-methyl-	3.83	6.5	ug/kg	JN
110-54-3	Hexane	4.23	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	6.8	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	3.4	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.34	2.6	ug/kg	JN
142-82-5	Heptane	7.53	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	13	ug/kg	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	12.53	2.4	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	12.95	3.8	ug/kg	JN
	Total TIC, Volatile		113.1	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	WT-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-16	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18116.D	1	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	WT-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-16	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	65%		30-130%
118-79-6	2,4,6-Tribromophenol	86%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WT-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-16 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 87.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	89%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	5900	ug/kg	JN
	Total TIC, Semi-Volatile		5900	ug/kg	J

---

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.46  
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# Report of Analysis

<b>Client Sample ID:</b> WT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-16	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.94	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.2	0.94	0.20	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	71.2	4.7	0.068	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.44	0.38	0.022	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.075 B	0.38	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	43600	470	5.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	13.7	0.94	0.089	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	7.1	4.7	0.044	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.8	2.3	0.52	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	15200	9.4	0.82	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	9.1	0.94	0.16	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	24400	470	4.8	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	461	1.4	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.013 B	0.036	0.0080	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	16.2	3.8	0.041	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	876	470	8.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.72 B	0.94	0.33	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.20 B	0.47	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1690	470	3.1	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.23 B	0.94	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	25.1	0.94	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	37.5	1.9	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> WT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-16	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.46  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.4		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.1		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> WT-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-16A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 87.4
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0078 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.95	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00090 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.025 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.63			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0026 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	7.8			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.023 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0053 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.020 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.47  
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## Report of Analysis

<b>Client Sample ID:</b> WT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-16B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.057		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.89		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0056		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.16		0.010	0.0014	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Cobalt	0.059		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.19		0.025	0.0070	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Iron	159		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.089		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.2		0.015	0.00081	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Mercury	0.00026		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.16		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0061 B		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0023 B		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.43		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Instrument QC Batch: MA16885
- (4) Prep QC Batch: MP22663
- (5) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.48  
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## Report of Analysis

<b>Client Sample ID:</b> WT-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28794.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.85 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	22.1	12	3.3	ug/kg	
71-43-2	Benzene	3.3	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.89	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	2.2	2.4	0.81	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.89	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.64	ug/kg	
75-09-2	Methylene chloride	2.5	2.4	0.63	ug/kg	
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	6.8	5.9	0.24	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.49  
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## Report of Analysis

<b>Client Sample ID:</b> WT-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.68	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	5.1	2.4	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	80%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	38	ug/kg	JN
109-66-0	Pentane	2.40	24	ug/kg	JN
2415-72-7	Cyclopropane, propyl-	3.83	7	ug/kg	JN
110-54-3	Hexane	4.25	13	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	6.4	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.80	3.7	ug/kg	JN
2453-00-1	Cyclopentane, 1,3-dimethyl-	7.34	2.5	ug/kg	JN
142-82-5	Heptane	7.54	7.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	14	ug/kg	JN
583-57-3	Cyclohexane, 1,2-dimethyl-	9.93	2.2	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	3.4	ug/kg	JN
	Total TIC, Volatile		121.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.49  
4

# Report of Analysis

<b>Client Sample ID:</b> WT-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-17	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18117.D	1	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	69	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	28	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.49  
 4

## Report of Analysis

<b>Client Sample ID:</b>	WT-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-17	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	34.8	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	30	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	87%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WT-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6400	ug/kg JN
	Total TIC, Semi-Volatile		6400	ug/kg J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.49  
4

# Report of Analysis

<b>Client Sample ID:</b> WT-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	7.0	0.92	0.19	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	45.1	4.6	0.067	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.49	0.37	0.022	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.092 B	0.37	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	88100	4600	58	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	15.5	0.92	0.088	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	8.5	4.6	0.043	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	17.5	2.3	0.51	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	17400	9.2	0.80	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	9.3	0.92	0.16	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	40100	460	4.7	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	383	1.4	0.037	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0079 U	0.036	0.0079	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	21.5	3.7	0.041	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	1660	460	7.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.45 B	0.92	0.32	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.18 B	0.46	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1310	460	3.1	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.37 B	0.92	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	20.4	0.92	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	41.3	1.8	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Instrument QC Batch: MA16884
- (4) Prep QC Batch: MP22657
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> WT-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.4		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.2		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.49  
**4**



# Report of Analysis

<b>Client Sample ID:</b> WT-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-17A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0052 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.79	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0024 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.062			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.081			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.49			0.10	0.020	mg/l	1	03/17/14	03/19/14	EAL SW846 6010C <sup>3</sup>
Lead	0.0079 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	6.4			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.066			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0053 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.060 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Instrument QC Batch: MA16891
- (4) Prep QC Batch: MP22672
- (5) Prep QC Batch: MP22674

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

4.50  
4

## Report of Analysis

<b>Client Sample ID:</b> WT-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-17B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.080		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.54		0.50	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0063		0.0040	0.00025	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.16		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.062		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.22		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	183		0.10	0.020	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.070		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00021		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.23		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.50		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Prep QC Batch: MP22663
- (4) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.51  
4

## Report of Analysis

<b>Client Sample ID:</b> WT-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V28795.D	1	03/19/14	AMY	n/a	n/a	MSV1079

Run #1	Initial Weight	Final Volume
Run #2	4.14 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	101	14	3.8	ug/kg	
71-43-2	Benzene	2.9	0.68	0.46	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.48	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.82	ug/kg	
78-93-3	2-Butanone (MEK)	15.4	14	4.2	ug/kg	
75-15-0	Carbon disulfide	0.92	6.8	0.18	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.7	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.8	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.8	0.77	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.44	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.56	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.57	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.57	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.57	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.36	ug/kg	
100-41-4	Ethylbenzene	1.8	2.7	0.94	ug/kg	J
591-78-6	2-Hexanone	ND	14	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.8	0.73	ug/kg	
75-09-2	Methylene chloride	3.6	2.7	0.72	ug/kg	
100-42-5	Styrene	ND	6.8	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.53	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.43	ug/kg	
108-88-3	Toluene	5.6	6.8	0.28	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.30	ug/kg	

ND = Not detected      MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WT-3(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-18	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.78	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	4.6	2.7	0.30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	108%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.17	39	ug/kg	JN
109-66-0	Pentane	2.41	23	ug/kg	JN
110-54-3	Hexane	4.23	12	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	6.7	ug/kg	JN
123-75-1	Pyrrrolidine	6.80	3.6	ug/kg	JN
3404-61-3	1-Hexene, 3-methyl-	7.34	2.6	ug/kg	JN
142-82-5	Heptane	7.54	7.3	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	13	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	12.95	3.3	ug/kg	JN
	Total TIC, Volatile		110.5	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> WT-3(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-18	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18118.D	5	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	71	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	81	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	460	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	700	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	75	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	530	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	80	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	70	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	69	ug/kg	
83-32-9	Acenaphthene	ND	560	75	ug/kg	
208-96-8	Acenaphthylene	ND	560	56	ug/kg	
120-12-7	Anthracene	ND	560	68	ug/kg	
56-55-3	Benzo(a)anthracene	284	560	72	ug/kg	J
50-32-8	Benzo(a)pyrene	332	560	60	ug/kg	J
205-99-2	Benzo(b)fluoranthene	523	560	70	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	343	560	56	ug/kg	J
207-08-9	Benzo(k)fluoranthene	154	560	85	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	1400	71	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	57	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	76	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	70	ug/kg	
86-74-8	Carbazole	ND	560	66	ug/kg	
218-01-9	Chrysene	246	560	70	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	66	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	85	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	86	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.52  
 4

## Report of Analysis

<b>Client Sample ID:</b>	WT-3(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-18	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	73	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	80	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	75	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	70	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	67	ug/kg	
132-64-9	Dibenzofuran	ND	560	78	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	44	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	70	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	81	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	52	ug/kg	
206-44-0	Fluoranthene	522	560	77	ug/kg	J
86-73-7	Fluorene	ND	560	75	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	88	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	81	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	194	560	62	ug/kg	J
78-59-1	Isophorone	ND	1400	65	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	71	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	70	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	70	ug/kg	
91-20-3	Naphthalene	ND	560	90	ug/kg	
98-95-3	Nitrobenzene	ND	1400	76	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	80	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	85	ug/kg	
85-01-8	Phenanthrene	172	560	76	ug/kg	J
129-00-0	Pyrene	445	560	66	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	77	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%		30-130%
4165-62-2	Phenol-d5	52%		30-130%
118-79-6	2,4,6-Tribromophenol	61%		30-130%
4165-60-0	Nitrobenzene-d5	57%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WT-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	69%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.64	4700	ug/kg	JN
	Total TIC, Semi-Volatile		4700	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> WT-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	2.4	0.89	0.18	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	75.0	4.4	0.064	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.17 B	0.36	0.021	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.12 B	0.36	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	121000	4400	56	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	15.7	0.89	0.084	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	2.8 B	4.4	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.1	2.2	0.49	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	8440	8.9	0.77	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	16.8	0.89	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	64400	440	4.5	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	281	1.3	0.036	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.011 B	0.036	0.0079	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	11.7	3.6	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	465	440	7.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.44	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2040	440	2.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.32 B	0.89	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	22.7	0.89	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	38.0	1.8	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Instrument QC Batch: MA16884
- (4) Prep QC Batch: MP22657
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> WT-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.7		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.2		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

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## Report of Analysis

<b>Client Sample ID:</b> WT-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-18A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0039 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.46 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0020 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.014 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.066 B			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0040 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.1			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.015 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0070 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.080 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> WT-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-18B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.011		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.24 B		0.50	0.00081	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Beryllium	0.0017 B		0.0040	0.00025	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Cadmium	0.00090 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.059		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.017 B		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.090		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	45.9		0.10	0.020	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.55		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.043		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.35		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Instrument QC Batch: MA16875
- (4) Prep QC Batch: MP22663
- (5) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b>	WT-4(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-19	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.8
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28796.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.00 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	125	11	3.2	ug/kg	
71-43-2	Benzene	2.9	0.56	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.40	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.68	ug/kg	
78-93-3	2-Butanone (MEK)	22.5	11	3.5	ug/kg	
75-15-0	Carbon disulfide	2.1	5.6	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.6	0.85	ug/kg	
67-66-3	Chloroform	ND	2.3	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.6	0.63	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.47	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.47	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	1.6	2.3	0.78	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.85	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.6	0.61	ug/kg	
75-09-2	Methylene chloride	2.2	2.3	0.60	ug/kg	J
100-42-5	Styrene	ND	5.6	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.35	ug/kg	
108-88-3	Toluene	5.2	5.6	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.24	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WT-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.65	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	3.6	2.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	82%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.16	36	ug/kg	JN
109-66-0	Pentane	2.41	21	ug/kg	JN
123-72-8	Butanal	4.08	1.2	ug/kg	JN
110-54-3	Hexane	4.24	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	5.5	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	3.5	ug/kg	JN
872-56-0	Isopropylcyclobutane	7.34	2.5	ug/kg	JN
142-82-5	Heptane	7.53	7.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	13	ug/kg	JN
1000195-03-0	Cyclobut-1-enylmethanol	9.78	5.9	ug/kg	JN
2207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	9.93	2.1	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	12.95	2.4	ug/kg	JN
	Total TIC, Volatile		111.3	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.55  
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## Report of Analysis

<b>Client Sample ID:</b>	WT-4(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-19	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18119.D	1	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	42.4	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	37.6	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	52.2	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	25.5	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	21.5	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	29.1	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> WT-4(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-19	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	156	280	8.6	ug/kg	J
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	101	280	10	ug/kg	J
206-44-0	Fluoranthene	53.6	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	23.7	110	12	ug/kg	J
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	19.6	110	15	ug/kg	J
129-00-0	Pyrene	50.5	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	92%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WT-4(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-19 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.8
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	95%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.55  
4



# Report of Analysis

<b>Client Sample ID:</b> WT-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	8.0	0.92	0.19	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	49.1	4.6	0.066	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.29 B	0.37	0.022	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.064 B	0.37	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	72000	4600	57	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	9.4	0.92	0.087	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.1	4.6	0.043	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	12.2	2.3	0.51	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	13900	9.2	0.80	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.0	0.92	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	33700	460	4.7	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	455	1.4	0.037	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0087 B	0.037	0.0081	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	11.7	3.7	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	673	460	7.8	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.46 B	0.92	0.32	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.15 B	0.46	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1280	460	3.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.13 B	0.92	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.4	0.92	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	33.1	1.8	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Instrument QC Batch: MA16884
- (4) Prep QC Batch: MP22657
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> WT-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.8		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.2		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.55  
4

## Report of Analysis

<b>Client Sample ID:</b> WT-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-19A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0050 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.65	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.017 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.17			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	6.1			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0053 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.018 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> WT-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-19B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.054		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Beryllium	0.0075		0.0040	0.00025	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Cadmium	0.0017 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.19		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.063		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.21		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	189		0.10	0.020	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Lead	0.17		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.3		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00038		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.18		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0050 B		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.57		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Instrument QC Batch: MA16875
- (4) Prep QC Batch: MP22663
- (5) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.57  
4

## Report of Analysis

<b>Client Sample ID:</b> WT-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-20	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.2
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V28797.D	1	03/19/14	AMY	n/a	n/a	MSV1079
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.22 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	54.5	11	3.0	ug/kg	
71-43-2	Benzene	2.8	0.54	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.65	ug/kg	
78-93-3	2-Butanone (MEK)	9.2	11	3.3	ug/kg	J
75-15-0	Carbon disulfide	ND	5.4	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.82	ug/kg	
67-66-3	Chloroform	ND	2.2	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.61	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.35	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.45	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	2.0	2.2	0.75	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.82	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.4	0.59	ug/kg	
75-09-2	Methylene chloride	2.3	2.2	0.58	ug/kg	
100-42-5	Styrene	ND	5.4	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.43	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.34	ug/kg	
108-88-3	Toluene	6.3	5.4	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.58  
4

## Report of Analysis

<b>Client Sample ID:</b> WT-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-20	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.2
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.62	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.99	ug/kg	
1330-20-7	Xylene (total)	4.8	2.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	2.16	35	ug/kg	JN
109-66-0	Pentane	2.39	19	ug/kg	JN
110-54-3	Hexane	4.24	11	ug/kg	JN
96-37-7	Cyclopentane, methyl-	5.29	5.4	ug/kg	JN
589-34-4	Hexane, 3-methyl-	6.79	3.2	ug/kg	JN
589-34-4	Hexane, 3-methyl-	7.53	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	8.31	12	ug/kg	JN
3557-49-1	7H-Dibenzo[b,g]carbazole, 7-methyl-	12.30	6.5	ug/kg	JN
98-82-8	Benzene, (1-methylethyl)-	12.53	2.2	ug/kg	JN
108-67-8	Benzene, 1,3,5-trimethyl-	12.95	3.6	ug/kg	JN
	Total TIC, Volatile		104.5	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> WT-5(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28737-20	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18120.D	1	03/12/14	KR	03/07/14	OP37095	MSW793
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.5 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	WT-5(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28737-20	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	66%		30-130%
118-79-6	2,4,6-Tribromophenol	92%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> WT-5(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28737-20 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.2
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.65	5800	ug/kg	JN
	Total TIC, Semi-Volatile		5800	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.58  
4

# Report of Analysis

<b>Client Sample ID:</b> WT-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-20	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.0	0.89	0.19	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	53.9	4.5	0.065	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.36	0.36	0.021	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.062 B	0.36	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	51700	450	5.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	11.7	0.89	0.085	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.6	4.5	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.1	2.2	0.50	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	14700	8.9	0.78	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	7.9	0.89	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	28600	450	4.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	413	1.3	0.036	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0084 B	0.037	0.0082	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	15.5	3.6	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	849	450	7.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.41 B	0.89	0.31	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.15 B	0.45	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2730	450	3.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.29 B	0.89	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	22.6	0.89	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	36.4	1.8	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> WT-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-20	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.2		%	1	03/12/14	MC	SM21 2540 B MOD.
pH	8.2		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.58  
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## Report of Analysis

<b>Client Sample ID:</b> WT-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-20A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0048 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Barium	0.57	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.023 B			0.050	0.00040	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Iron	0.14			0.10	0.020	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Manganese	6.5			0.015	0.00081	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/17/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.019 B			0.040	0.00057	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0053 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0087 B			0.10	0.00050	mg/l	1	03/17/14	03/17/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16867
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22672
- (4) Prep QC Batch: MP22674

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> WT-5(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28737-20B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.071		0.010	0.0029	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.81		0.50	0.00081	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Beryllium	0.0081		0.0040	0.00025	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Cadmium	0.00090 B		0.0040	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.19		0.010	0.0014	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.070		0.050	0.00040	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.20		0.025	0.0070	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Iron	200		0.10	0.020	mg/l	1	03/14/14	03/17/14 EAL	SW846 6010C <sup>3</sup>
Lead	0.089		0.010	0.0017	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.8		0.015	0.00081	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00045		0.00020	0.00010	mg/l	1	03/14/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.21		0.040	0.00057	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0060 B		0.025	0.0048	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.51		0.10	0.00050	mg/l	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16862
- (2) Instrument QC Batch: MA16874
- (3) Instrument QC Batch: MA16875
- (4) Prep QC Batch: MP22663
- (5) Prep QC Batch: MP22665

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

13420 Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.299872847 Longitude: -88.461085425  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.299872847 Longitude: -88.461085425

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION RL1-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-67. SEE FIGURE 3-13 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28738

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

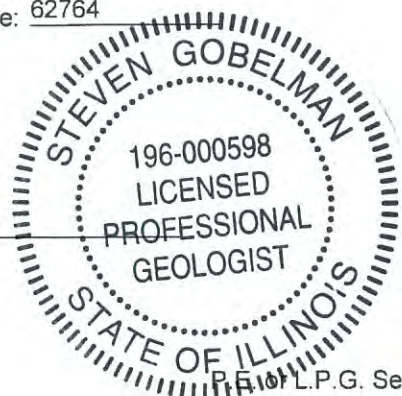
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-67**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RL1-1(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	RL1-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.5	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.3	30
Ethylbenzene	0.7 J	13000
Methylene chloride	1.1 J	20
Toluene	2.4 J	12000
Xylene (Total)	2.1 J	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	21.6 J	46000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	4.4	11.3 / 13
Barium, Total	27.1	1500
Beryllium, Total	0.19 J	22
Cadmium, Total	0.091 J	5.2
Calcium, Total	81000 J	---
Chromium, Total	8.3	21
Cobalt, Total	4.3 J	20
Copper, Total	10.8	2900
Iron, Total	10200	15000 / 15900
Lead, Total	7.3	107
Magnesium, Total	39300 J	325000
Manganese, Total	321 J	630 / 636
Nickel, Total	10.5	100
Potassium, Total	639	---
Sodium, Total	1740 J	---
Thallium, Total	0.27 J	2.6
Vanadium, Total	15.5	550
Zinc, Total	31.5 J	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.39 J	2
Cadmium, TCLP	0.0016 J	0.005
Cobalt, TCLP	0.0093 J	1
Copper, TCLP	0.01 J	0.65
Iron, TCLP	0.091 J	5
Lead, TCLP	0.0024 J	0.0075
Manganese, TCLP	3.9 J	0.15
Nickel, TCLP	0.025 J	0.1
Zinc, TCLP	0.0017 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.1	0.05
Barium, SPLP	0.69	2
Beryllium, SPLP	0.0051 J	0.004
Cadmium, SPLP	0.0019 J	0.005
Chromium, SPLP	0.16	0.1
Cobalt, SPLP	0.054	1
Copper, SPLP	0.21	0.65
Iron, SPLP	205 J	5
Lead, SPLP	0.11	0.0075
Manganese, SPLP	3.4	0.15
Mercury, SPLP	0.00039 J	0.002
Nickel, SPLP	0.18	0.1
Zinc, SPLP	0.61 J	5


**Summary Table of ISGS Site No. 2792-67**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28738

Sampling Date: 03/06/14

Report to:

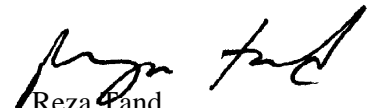
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **298**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	RL1-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-1	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.4
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63860.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.14 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.0	2.5	ug/kg	
71-43-2	Benzene	1.3	0.45	0.30	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.19	ug/kg	
75-25-2	Bromoform	ND	1.8	0.32	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.54	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.0	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	4.5	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.14	ug/kg	
75-00-3	Chloroethane	ND	4.5	0.68	ug/kg	
67-66-3	Chloroform	ND	1.8	0.15	ug/kg	
74-87-3	Chloromethane	ND	4.5	0.51	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.29	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.37	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.41	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.38	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.20	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.24	ug/kg	
100-41-4	Ethylbenzene	0.70	1.8	0.62	ug/kg	J
591-78-6	2-Hexanone	ND	9.0	0.68	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.5	0.49	ug/kg	
75-09-2	Methylene chloride	1.1	1.8	0.48	ug/kg	J
100-42-5	Styrene	ND	4.5	0.15	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.35	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.28	ug/kg	
108-88-3	Toluene	2.4	4.5	0.19	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.20	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RL1-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.52	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.82	ug/kg	
1330-20-7	Xylene (total)	2.1	1.8	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	30	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	12	ug/kg	JN
109-66-0	Pentane	6.48	11	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.83	7.4	ug/kg	JN
110-54-3	Hexane	8.46	7.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6	ug/kg	JN
	Total TIC, Volatile		73.8	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b>	RL1-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-1	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71757.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RL1-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-1	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	21.6	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-130%
4165-62-2	Phenol-d5	80%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RL1-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	99%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.59	6000	ug/kg JN
	Total TIC, Semi-Volatile		6000	ug/kg J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> RL1-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.91	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.4	0.91	0.19	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.1	4.6	0.066	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.37	0.022	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.091 B	0.37	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	81000	4600	57	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	8.3	0.91	0.087	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.3 B	4.6	0.043	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	10.8	2.3	0.51	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10200	9.1	0.80	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.3	0.91	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	39300	460	4.7	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	321	1.4	0.037	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0079 U	0.036	0.0079	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	10.5	3.7	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	639	460	7.8	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.91	0.32	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1740	460	3.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.27 B	0.91	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	15.5	0.91	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	31.5	1.8	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Instrument QC Batch: MA16884
- (4) Prep QC Batch: MP22657
- (5) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL1-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-1	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.4		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.5		su	1	03/12/14	MA	SW846 9045D

---

RL = Reporting Limit

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> RL1-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-1A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.4
---	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.39 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0016 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0093 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.010 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.091 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0024 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.9			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.025 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0017 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> RL1-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-1B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.10		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.69		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0051		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0019 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.16		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.054		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.21		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	205		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.11		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.4		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00039		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.18		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.61		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.3  
4

FED-EX Tracking #	Bottle Order Count #
Accutest Quote #	Accutest Job # <b>MC28738</b>

Client / Reporting Information		Project Information										Requested Analysis ( see TEST CODE sheet)											Matrix Codes																						
Company Name <i>Watson Solutions</i>		Project Name <i>IDOT-048 McHenry County</i>										<table border="1"> <tr> <td><i>NI-CY</i></td> <td><i>SNOCS</i></td> <td><i>Total Metals</i></td> <td><i>TCLP/SPLP methods</i></td> <td><i>pH</i></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>											<i>NI-CY</i>	<i>SNOCS</i>	<i>Total Metals</i>	<i>TCLP/SPLP methods</i>	<i>pH</i>																	Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB - Rinse Blank TB-Trip Blank	
<i>NI-CY</i>	<i>SNOCS</i>	<i>Total Metals</i>	<i>TCLP/SPLP methods</i>	<i>pH</i>																																									
Street Address <i>730 E Banker Ct Ste 500</i>		Billing Information ( If different from Report to)																					LAB USE ONLY																						
City State Zip <i>Jarvis Hills IL 60861</i>																																													
Project Contact <i>S. Baboushian</i>																																													
Phone # Fax # <i>815-474-4115</i>																																													
Sampler(s) Name(s) Phone # <i>T. Wallis 815-474-4130</i>																																													
Accutest Sample #	Field ID / Point of Collection	MEQHDI Viol #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NO3	NO2	NO3+NO2	NO3-NO2	DO (Water)	MALCOH	ENCORE	Residual																													
-1	<i>RL1-1(0.5-1.5)-030614</i>		<i>3-6-14</i>	<i>1045</i>	<i>TW</i>	<i>SO</i>	<i>3</i>																																						
-2	<i>RP2-1(0.5-1.5)-030614</i>			<i>1055</i>																																									
-3	<i>RP2-2(0.5-1.5)-030614</i>			<i>1105</i>																																									
-4	<i>RC-1(0.5-1.5)-030614</i>			<i>1115</i>																																									
-5	<i>RC-1(0.5-1.5)-030614D</i>			<i>1115</i>																																									
-6	<i>RC-2(0.5-1.5)-030614</i>			<i>1200</i>																																									
-7	<i>RL3-1(0.5-1.5)-030614</i>			<i>1210</i>																																									
-8	<i>VL12-1(0.5-1.5)-030614</i>			<i>1225</i>																																									
-9	<i>VL12-2(0.5-1.5)-030614</i>			<i>1230</i>																																									
-10	<i>VL12-3(0.5-1.5)-030614</i>			<i>1240</i>																																									
-11	<i>VL12-4(0.5-1.5)-030614</i>			<i>1250</i>																																									
-12	<i>RL5-1(0.5-1.5)-030614</i>		<i>3-6-14</i>	<i>1300</i>	<i>TW</i>	<i>SO</i>	<i>3</i>																																						
<b>Turnaround Time ( Business days)</b> <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day <b>RUSH</b> <input type="checkbox"/> 3 Day <b>EMERGENCY</b> <input type="checkbox"/> 2 Day <b>EMERGENCY</b> <input type="checkbox"/> 1 Day <b>EMERGENCY</b> Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: _____		<b>Data Deliverable Information</b> <input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other				<b>Comments / Special Instructions</b> <i>Loc 15A, 6F2</i>																																	
<b>Sample Custody must be documented below each time samples change possession, including courier delivery.</b>													<b>CHICAGO SC</b>																																
Relinquished by Sampler: 1 <i>T. Wallis</i>	Date Time: <i>3-6-14/1500</i>	Received By: <i>Steve Kelly</i>	Date Time: <i>3/6/14 3:04</i>	Relinquished By: <i>F20</i>	Date Time: <i>3-7-14</i>	Received By: <i>[Signature]</i>																																							
Relinquished by Sampler: 3	Date Time:	Received By: 3	Date Time:	Relinquished By:	Date Time:	Received By:																																							
Relinquished by: 5	Date Time:	Received By: 5	Date Time:	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/>	On Ice <i>81.3. 1.1 0.8</i>	Cooler Temp.																																					

51 5

FED-EX Tracking #  
Bottle Order Control #

Accutest Quote #  
Accutest Job # **MC28738**

Client / Reporting Information			Project Information												Requested Analysis ( see TEST CODE sheet)										Matrix Codes				
Company Name <b>Weston Solutions</b>			Project Name <b>IDOT-048 Wething County</b>												<b>VOCs</b> <b>SNOcs</b> <b>Total Metals</b> <b>TCLP/SLIP Metals</b> <b>pH</b>										DW - Drinking Water GW - Ground Water WW - W/Solar SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank				
Street Address <b>750 E. Parkway Ct Ste 500</b>			Street: <b>750 E. Parkway Ct Ste 500</b>						Billing Information (if different from Report to)																				
City State Zip <b>Vernon Hills IL 60061</b>			City: <b>Vernon Hills IL 60061</b>						Company Name																				
Project Contact <b>S. Babusankar</b>			Project#: <b>817-918-4018</b>						Street Address																				
Phone # Fax # <b>817-918-4018 -4055</b>			Client PO#						City State Zip																				
Sampler(s) Name(s) <b>T. Walk</b>			Project Manager <b>817-918-4180</b>						Attention: PO#																				
Actual Sample #	Field ID / Point of Collection	METH/ID/Vial #	Collection				Matrix	# of bottles	Number of preserved Bottles																				
			Date	Time	Sampled by				HCO	INCOH	NHCO3	H2SO4	NO3	NO2	DI Water	MCOH	ENCO3	Biofibre											
13	VL14-1(0.5-1.5)-030614		3-6-14	1310	TW	SO	3																		X	X	X	X	X
14	VL14-2(0.5-1.5)-030614			1320																									
15	VL14-3(0.5-1.5)-030614			1325																									
16	VL14-3(0.5-1.5)-030614D			1325																									
17	DT-1(0.5-1.5)-030614			1340																									
18	REA-1(0.5-1.5)-030614			1345																									
19	REA-2(0.5-1.5)-030614		3-6-14	1400	TW	SO	3																		X	X	X	X	X

Data Deliverable Information										Comments / Special Instructions									
Turnaround Time ( Business days)					Approved By (Accutest PM) / Date:					Commercial "A" ( Level 1 )					NYASP Category A				
<input type="checkbox"/> Std. 10 Business Days										<input type="checkbox"/> Commercial "B" ( Level 2 )					<input type="checkbox"/> NYASP Category B				
<input type="checkbox"/> Std. 5 Business Days (By Contract only)										<input type="checkbox"/> FULLT1 ( Level 3+4 )					<input type="checkbox"/> State Forms				
<input type="checkbox"/> 5 Day RUSH										<input type="checkbox"/> CT RCP					<input type="checkbox"/> EDD Format				
<input type="checkbox"/> 3 Day EMERGENCY										<input type="checkbox"/> MA MCP					<input type="checkbox"/> Other _____				
<input type="checkbox"/> 2 Day EMERGENCY										Commercial "A" = Results Only									
<input type="checkbox"/> 1 Day EMERGENCY										Commercial "B" = Results + QC Summary									

Emergency & Rush T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

1	2	3	4	5
Relinquished by Sampler: <b>T. Walk</b>	Date Time: <b>3-6-14/1500</b>	Received By: <b>[Signature]</b>	Relinquished By: <b>FEDX</b>	Date Time: <b>3-7-14 9:30</b>
Relinquished by Sampler: <b>3</b>	Date Time:	Received By:	Relinquished By:	Date Time: <b>4</b>
Relinquished by: <b>5</b>	Date Time:	Received By: <b>5</b>	Custody Seal #	Preserved where applicable <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact

5.1  
5





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

13320 Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.299374043 Longitude: -88.458576731

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.299374043 Longitude: -88.458576731

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS RP2-1 AND RP2-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-68. SEE FIGURE 3-13 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28738

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**


I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

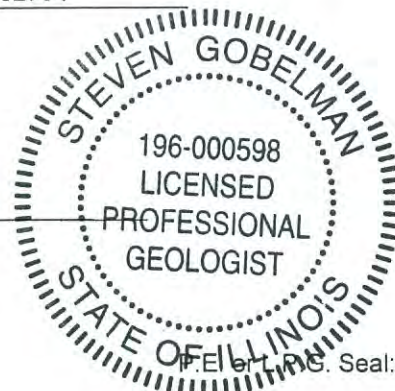
Company Name: Illinois Department of Transportation  
 Street Address: 2300 South Dirksen Parkway  
 City: Springfield State: IL Zip Code: 62764  
 Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



P.E. or L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-68**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RP2-1(0.5-1.5)-030614	RP2-2(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	
Location ID	RP2-1	RP2-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.1	7.8	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	1.8	1.2	30
Ethylbenzene	0.86 J	ND	13000
Methylene chloride	0.88 J	1.1 J	20
Toluene	3.1 J	2.2 J	12000
Xylene (Total)	2.2 J	1.6 J	5600
<b>SVOCs (ug/kg)</b>			
bis(2-Ethylhexyl)phthalate	16.6 J	ND	46000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	6.3	7.4	11.3 / 13
Barium, Total	59.2	85.9	1500
Beryllium, Total	0.44	0.51	22
Cadmium, Total	0.11 J	0.068 J	5.2
Calcium, Total	25400 J	35600 J	---
Chromium, Total	12.1	15.5	21
Cobalt, Total	6.4	8.2	20
Copper, Total	15.2	17	2900
Iron, Total	14700	17900	15000 / 15900
Lead, Total	10.2	8.8	107
Magnesium, Total	14400 J	23000 J	325000
Manganese, Total	266 J	496 J	630 / 636
Mercury, Total	0.018 J	0.021 J	0.89
Nickel, Total	15.6	21.5	100
Potassium, Total	776	961	---
Selenium, Total	0.58 J	0.43 J	1.3
Silver, Total	0.17 J	0.2 J	4.4
Sodium, Total	1790 J	1970 J	---
Thallium, Total	0.27 J	0.15 J	2.6
Vanadium, Total	24.1	27.1	550
Zinc, Total	54.1 J	38.1 J	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	0.004 J	0.0052 J	0.05
Barium, TCLP	0.7	1	2
Cadmium, TCLP	0.0015 J	0.0014 J	0.005
Cobalt, TCLP	0.018 J	0.033 J	1
Copper, TCLP	0.021 J	0.013 J	0.65
Iron, TCLP	0.063 J	0.1	5
Lead, TCLP	0.0025 J	0.0039 J	0.0075
Manganese, TCLP	8	11.8	0.15
Nickel, TCLP	0.018 J	0.029 J	0.1
Selenium, TCLP	ND	0.0054 J	0.05
Zinc, TCLP	0.0099 J	0.0085 J	5

**Summary Table of ISGS Site No. 2792-68**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RP2-1(0.5-1.5)-030614	RP2-2(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	
Location ID	RP2-1	RP2-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.063	0.074	0.05
Barium, SPLP	0.86	1.1	2
Beryllium, SPLP	0.0044 J	0.0069 J	0.004
Cadmium, SPLP	0.0013 J	0.0014 J	0.005
Chromium, SPLP	0.13	0.18	0.1
Cobalt, SPLP	0.057	0.08	1
Copper, SPLP	0.18	0.22	0.65
Iron, SPLP	161	205	5
Lead, SPLP	0.076	0.09	0.0075
Manganese, SPLP	2.9	3.1	0.15
Mercury, SPLP	0.00021 J	0.00032 J	0.002
Nickel, SPLP	0.16	0.24	0.1
Selenium, SPLP	0.0048 J	0.0059 J	0.05
Zinc, SPLP	0.45 J	0.51 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28738

Sampling Date: 03/06/14

Report to:

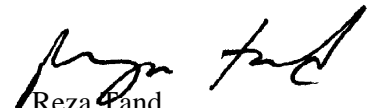
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **298**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> RP2-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-2	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63861.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.71 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	1.8	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.31	ug/kg	
100-41-4	Ethylbenzene	0.86	2.3	0.81	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.89	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.63	ug/kg	
75-09-2	Methylene chloride	0.88	2.3	0.62	ug/kg	J
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.37	ug/kg	
108-88-3	Toluene	3.1	5.8	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP2-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-2	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	2.2	2.3	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	62	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	27	ug/kg	JN
109-66-0	Pentane	6.48	29	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.83	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	6.6	ug/kg	JN
110-54-3	Hexane	8.46	15	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8.5	ug/kg	JN
110-82-7	Cyclohexane	9.92	8	ug/kg	JN
142-82-5	Heptane	10.51	6.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	11	ug/kg	JN
	Total TIC, Volatile		188.5	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP2-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71758.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP2-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-2	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	16.6	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	83%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RP2-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-2 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.8
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5800	ug/kg	JN
	Total TIC, Semi-Volatile		5800	ug/kg	J

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.4  
4

# Report of Analysis

<b>Client Sample ID:</b> RP2-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-2	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.3	0.90	0.19	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	59.2	4.5	0.065	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.44	0.36	0.021	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.11 B	0.36	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	25400	450	5.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	12.1	0.90	0.085	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.4	4.5	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	15.2	2.2	0.50	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	14700	9.0	0.78	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	10.2	0.90	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	14400	450	4.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	266	1.3	0.036	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.018 B	0.034	0.0076	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	15.6	3.6	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	776	450	7.7	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.58 B	0.90	0.31	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.17 B	0.45	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1790	450	3.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.27 B	0.90	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	24.1	0.90	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	54.1	1.8	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.4  
 4

## Report of Analysis

<b>Client Sample ID:</b> RP2-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-2 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.8
--	--

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.8		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.1		su	1	03/12/14	MA	SW846 9045D

---

RL = Reporting Limit

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> RP2-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-2A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.8
---	--

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0040 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.70	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.018 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.021 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.063 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0025 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	8.0			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0099 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.5  
4

## Report of Analysis

<b>Client Sample ID:</b> RP2-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-2B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.8
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.063		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.86		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0044		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0013 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.057		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.18		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	161		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.076		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.9		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00021		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.16		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.45		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b>	RP2-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63862.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.28 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.1	ug/kg	
71-43-2	Benzene	1.2	0.55	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.23	ug/kg	
75-25-2	Bromoform	ND	2.2	0.39	ug/kg	
74-83-9	Bromomethane	ND	2.2	0.67	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.4	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.84	ug/kg	
67-66-3	Chloroform	ND	2.2	0.19	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.2	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.2	0.36	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.2	0.46	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.2	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.2	0.46	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.2	0.46	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.46	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	2.2	0.76	ug/kg	
591-78-6	2-Hexanone	ND	11	0.84	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.2	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.5	0.60	ug/kg	
75-09-2	Methylene chloride	1.1	2.2	0.59	ug/kg	J
100-42-5	Styrene	ND	5.5	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.44	ug/kg	
127-18-4	Tetrachloroethene	ND	2.2	0.35	ug/kg	
108-88-3	Toluene	2.2	5.5	0.23	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.24	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP2-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-3	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 85.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.63	ug/kg	
79-01-6	Trichloroethene	ND	2.2	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	1.0	ug/kg	
1330-20-7	Xylene (total)	1.6	2.2	0.24	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	46	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	22	ug/kg	JN
109-66-0	Pentane	6.48	23	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	13	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7	ug/kg	JN
110-54-3	Hexane	8.46	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	6.5	ug/kg	JN
110-82-7	Cyclohexane	9.92	7.1	ug/kg	JN
142-82-5	Heptane	10.51	5.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.4	ug/kg	JN
	Total TIC, Volatile		153.6	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RP2-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71759.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	95	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	73	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	30	ug/kg	
88-75-5	2-Nitrophenol	ND	580	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	RP2-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-3	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.1	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	15	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	62%		30-130%
118-79-6	2,4,6-Tribromophenol	81%		30-130%
4165-60-0	Nitrobenzene-d5	59%		30-130%
321-60-8	2-Fluorobiphenyl	67%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RP2-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.6
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	90%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.60	5100	ug/kg	JN
	Total TIC, Semi-Volatile		5100	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

# Report of Analysis

<b>Client Sample ID:</b> RP2-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.15 U	0.97	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.4	0.97	0.20	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	85.9	4.8	0.070	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.51	0.39	0.023	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.068 B	0.39	0.041	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	35600	480	6.1	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	15.5	0.97	0.092	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	8.2	4.8	0.045	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	17.0	2.4	0.54	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	17900	9.7	0.84	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	8.8	0.97	0.16	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	23000	480	4.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	496	1.4	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.021 B	0.038	0.0083	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	21.5	3.9	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	961	480	8.3	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.43 B	0.97	0.34	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.20 B	0.48	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1970	480	3.2	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.15 B	0.97	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	27.1	0.97	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	38.1	1.9	0.16	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22686

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
 4

## Report of Analysis

<b>Client Sample ID:</b> RP2-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-3	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.6		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	7.8		su	1	03/12/14	MA	SW846 9045D

RL = Reporting Limit

4.7  
4

# Report of Analysis

<b>Client Sample ID:</b> RP2-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-3A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0052 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	1.0	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0014 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.033 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.013 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.10			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0039 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	11.8			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.029 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0054 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0085 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.8  
4

## Report of Analysis

<b>Client Sample ID:</b> RP2-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-3B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 85.6
---	--

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.074		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	1.1		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0069		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.18		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.080		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.22		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	205		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.090		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.1		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00032		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.24		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0059 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.51		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.9  
4



FED-EX Tracking #		Bottle Order Control #									
Accutest Quote #		Accutest Job # <b>MC28738</b>									
<b>Client / Reporting Information</b>		<b>Project Information</b>									
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>									
Street Address <b>750 E. Banker Ct Ste 500</b>		Street:									
City <b>Wauver Hills IL</b>		Billing Information (If different from Report to)									
State <b>IL</b>		Company Name									
Zip <b>60061</b>		Street Address									
Project Contact <b>S. Babusankaran</b>		Project#									
E-mail		Street Address									
Phone # <b>817-918-4018</b>		City									
Fax # <b>-4055</b>		State									
Client PO#		Zip									
Sampler(s) Name(s) <b>T. Walk</b>		Project Manager									
Phone # <b>817-918-4180</b>		Attention:									
PO#		PO#									
<b>Requested Analysis (see TEST CODE sheet)</b>		<b>Matrix Codes</b>									
VDOCs SDOCs Total Metals TCEP/SPUP metals PH		DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
<b>LAB USE ONLY</b>											
Actual Sample #	Field ID / Point of Collection	MEQ/MDI Vial #	Collection	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles		
									<input type="checkbox"/> HCl <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NONE <input type="checkbox"/> DI Water <input type="checkbox"/> MCH <input type="checkbox"/> ENCORE <input type="checkbox"/> Biothane		
13	VL14-1(0.5-1.5)-030614			3-6-14	1310	TW	SO	3			X
14	VL14-2(0.5-1.5)-030614				1320						X
15	VL14-3(0.5-1.5)-030614				1325						X
16	VL14-3(0.5-1.5)-030614				1325						X
17	DT-1(0.5-1.5)-030614				1340						X
18	REA-1(0.5-1.5)-030614				1345						X
19	REA-2(0.5-1.5)-030614			3-6-14	1400	TW	SO	3			X
<b>Data Deliverable Information</b>		<b>Comments / Special Instructions</b>									
Turnaround Time (Business days) <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary									
Relinquished by Sampler: <b>1 T. Walk</b> Date Time: <b>3-6-14/1500</b> Relinquished by: <b>3</b> Date Time: <b>3-7-14 3:04</b>		Relinquished By: <b>FEDX</b> Date Time: <b>3-7-14 9:30</b> Received By: <b>2</b> Date Time: <b>3-7-14</b>									
Relinquished by Sampler: <b>3</b> Date Time: <b>3-7-14</b> Relinquished by: <b>4</b> Date Time: <b>3-7-14</b>		Relinquished By: <b>4</b> Date Time: <b>3-7-14</b> Received By: <b>4</b> Date Time: <b>3-7-14</b>									
Relinquished by Sampler: <b>5</b> Date Time: <b>3-7-14</b> Relinquished by: <b>5</b> Date Time: <b>3-7-14</b>		Custody Seal # <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact Preserved where applicable <input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp.									

5.1  
5





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

1915 to 1916 Sando Lane AND 13212 US 14

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.298854229 Longitude: -88.454959619  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.298854229 Longitude: -88.454959619

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS RL2-1, RL2-2, AND RL2-3 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-69. SEE FIGURES 3-13 AND 3-14 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28684

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

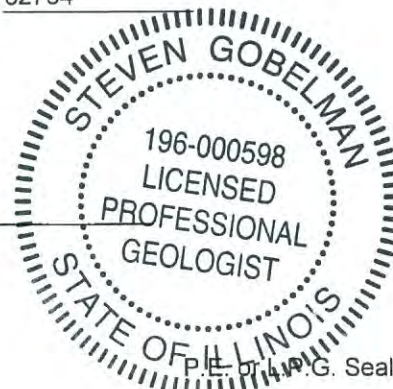
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/12/14

Date:



**Summary Table of ISGS Site No. 2792-69**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RL2-1(0.5-1.5)-030314	RL2-2(0.5-1.5)-030314	RL2-3(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/4/2014	
Location ID	RL2-1	RL2-2	RL2-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	7.4	7.4	7.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Benzene	1.4	2	1.6	30
Ethylbenzene	0.61 J	0.99 J	0.96 J	13000
Methylene chloride	1.2 J	1.7 J	0.77 J	20
Toluene	2.4 J	4 J	3.4 J	12000
Xylene (Total)	1.3 J	2.3	2.2	5600
<b>SVOCs (ug/kg)</b>				
bis(2-Ethylhexyl)phthalate	ND	18.9 J	ND	46000
Di-N-Butyl phthalate	65.2 J	ND	85.1 J	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	5.6	5.7	6.9	11.3 / 13
Barium, Total	53.2	35.7	50.8	1500
Beryllium, Total	0.33 J	0.24 J	0.48	22
Cadmium, Total	0.13 J	0.099 J	0.071 J	5.2
Calcium, Total	36200	50200	42500	---
Chromium, Total	12.9	10.7	15.9	21
Cobalt, Total	7.4	4.7	7.2	20
Copper, Total	13.5	12.4	14.8	2900
Iron, Total	14500	13600	17100	15000 / 15900
Lead, Total	24.9	22	14.2	107
Magnesium, Total	21200	30000	24800	325000
Manganese, Total	560	395	341	630 / 636
Mercury, Total	0.022 J	0.018 J	0.015 J	0.89
Nickel, Total	14.3	11	17.8	100
Potassium, Total	665 J	603 J	1240 J	---
Selenium, Total	0.41 J	0.32 J	0.34 J	1.3
Silver, Total	0.48	0.41 J	0.46	4.4
Sodium, Total	3450	3280	2930	---
Thallium, Total	0.45 J	0.23 J	0.2 J	2.6
Vanadium, Total	29	21.9	26	550
Zinc, Total	42.3	31.8	41.9	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	0.0038 J	ND	ND	0.05
Barium, TCLP	0.79	0.33 J	0.47 J	2
Cadmium, TCLP	0.0018 J	0.0012 J	0.0013 J	0.005
Cobalt, TCLP	0.035 J	ND	0.0071 J	1
Iron, TCLP	1.3	ND	ND	5
Lead, TCLP	0.0041 J	ND	ND	0.0075
Manganese, TCLP	9.6	1.3	3.7	0.15
Nickel, TCLP	0.034 J	0.013 J	0.014 J	0.1
Selenium, TCLP	0.0081 J	0.0089 J	0.0089 J	0.05
Zinc, TCLP	0.047 J	0.015 J	0.014 J	5

**Summary Table of ISGS Site No. 2792-69**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RL2-1(0.5-1.5)-030314	RL2-2(0.5-1.5)-030314	RL2-3(0.5-1.5)-030414	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/4/2014	
Location ID	RL2-1	RL2-2	RL2-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.071	0.051	0.1	0.05
Barium, SPLP	0.65 J	0.35 J	0.86 J	2
Beryllium, SPLP	0.0036 J	0.0023 J	0.0065	0.004
Cadmium, SPLP	0.0024 J	0.0016 J	0.003 J	0.005
Chromium, SPLP	0.14 J	0.085 J	0.21 J	0.1
Cobalt, SPLP	0.046 J	0.022 J	0.079	1
Copper, SPLP	0.14 J	0.11 J	0.23 J	0.65
Iron, SPLP	140 J	102 J	215 J	5
Lead, SPLP	0.16	0.086	0.12	0.0075
Manganese, SPLP	2	0.93	3	0.15
Mercury, SPLP	0.00019 J	0.0002	0.00032	0.002
Nickel, SPLP	0.12	0.077	0.22	0.1
Selenium, SPLP	0.009 J	0.0063 J	0.0089 J	0.05
Zinc, SPLP	0.43	0.33	0.61	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28684

Sampling Dates: 03/03/14 - 03/04/14

Report to:

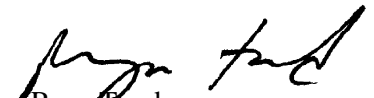
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **313**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> RL2-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63654.D	1	03/07/14	KD	n/a	n/a	MSM2231
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.99 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	8.3	2.3	ug/kg	
71-43-2	Benzene	1.4	0.41	0.28	ug/kg	
75-27-4	Bromodichloromethane	ND	1.7	0.17	ug/kg	
75-25-2	Bromoform	ND	1.7	0.29	ug/kg	
74-83-9	Bromomethane	ND	1.7	0.50	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.3	2.5	ug/kg	
75-15-0	Carbon disulfide	ND	4.1	0.11	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.7	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	1.7	0.13	ug/kg	
75-00-3	Chloroethane	ND	4.1	0.62	ug/kg	
67-66-3	Chloroform	ND	1.7	0.14	ug/kg	
74-87-3	Chloromethane	ND	4.1	0.47	ug/kg	
124-48-1	Dibromochloromethane	ND	1.7	0.27	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.7	0.22	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.7	0.27	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.7	0.34	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	0.37	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	0.34	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.7	0.34	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.7	0.35	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	0.22	ug/kg	
100-41-4	Ethylbenzene	0.61	1.7	0.57	ug/kg	J
591-78-6	2-Hexanone	ND	8.3	0.63	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	0.15	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.1	0.45	ug/kg	
75-09-2	Methylene chloride	1.2	1.7	0.44	ug/kg	J
100-42-5	Styrene	ND	4.1	0.14	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	0.32	ug/kg	
127-18-4	Tetrachloroethene	ND	1.7	0.26	ug/kg	
108-88-3	Toluene	2.4	4.1	0.17	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.7	0.18	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b> RL2-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.7	0.47	ug/kg	
79-01-6	Trichloroethene	ND	1.7	0.20	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	0.75	ug/kg	
1330-20-7	Xylene (total)	1.3	1.7	0.18	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	27	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	13	ug/kg	JN
109-66-0	Pentane	6.48	13	ug/kg	JN
	Unknown	8.46	7.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	5.6	ug/kg	JN
	Total TIC, Volatile		66	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.37  
4

## Report of Analysis

<b>Client Sample ID:</b>	RL2-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-13	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37402.D	1	03/11/14	KR	03/05/14	OP37063	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.9 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	RL2-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-13	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	65.2	280	29	ug/kg	J
117-84-0	Di-n-octyl phthalate	ND	280	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		30-130%
4165-62-2	Phenol-d5	82%		30-130%
118-79-6	2,4,6-Tribromophenol	97%		30-130%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	88%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RL2-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-13 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.7
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	105%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.68	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.37  
4

# Report of Analysis

<b>Client Sample ID:</b> RL2-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.6	0.88	0.18	mg/kg	1	03/06/14	03/11/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Barium	53.2	4.4	0.064	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.33 B	0.35	0.021	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.13 B	0.35	0.037	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	36200	440	5.5	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	12.9	0.88	0.084	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	7.4	4.4	0.041	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.5	2.2	0.49	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	14500	8.8	0.77	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	24.9	0.88	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	21200	440	4.5	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	560	1.3	0.035	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.022 B	0.036	0.0079	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	14.3	3.5	0.039	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	665	440	7.5	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.41 B	0.88	0.31	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.48	0.44	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	3450	440	2.9	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.45 B	0.88	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	29.0	0.88	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	42.3	1.8	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22608
- (5) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL2-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-13	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.7		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	7.4		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.37  
4

# Report of Analysis

<b>Client Sample ID:</b> RL2-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-13A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0038 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.79	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0018 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.035 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	1.3			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0041 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	9.6			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.034 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0081 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.047 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL2-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-13B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.7
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.071		0.010	0.0029	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.65		0.50	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0036 B		0.0040	0.00025	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0024 B		0.0040	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.046 B		0.050	0.00040	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.14		0.025	0.0070	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Iron	140		0.10	0.020	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.0		0.015	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00019 B		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0090 B		0.025	0.0048	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.43		0.10	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.39  
4

## Report of Analysis

<b>Client Sample ID:</b> RL2-2(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-14	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63655.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	5.22 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.0	ug/kg	
71-43-2	Benzene	2.0	0.53	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	5.3	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.81	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.29	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.45	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.45	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	0.99	2.1	0.74	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.3	0.58	ug/kg	
75-09-2	Methylene chloride	1.7	2.1	0.57	ug/kg	J
100-42-5	Styrene	ND	5.3	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	4.0	5.3	0.22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RL2-2(0.5-1.5)-030314		<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-14		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 89.6
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.97	ug/kg	
1330-20-7	Xylene (total)	2.3	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.10	16	ug/kg	JN
109-66-0	Pentane	6.49	14	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8	ug/kg	JN
	Total TIC, Volatile		38	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
4



## Report of Analysis

<b>Client Sample ID:</b>	RL2-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-14	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37403.D	1	03/11/14	KR	03/05/14	OP37063	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RL2-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-14	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	18.9	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	77%		30-130%
118-79-6	2,4,6-Tribromophenol	90%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RL2-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.68	5700	ug/kg JN
	Total TIC, Semi-Volatile		5700	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.40  
4

# Report of Analysis

<b>Client Sample ID:</b> RL2-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.7	0.90	0.19	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	35.7	4.5	0.065	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.24 B	0.36	0.021	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.099 B	0.36	0.038	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	50200	450	5.7	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	10.7	0.90	0.086	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	4.7	4.5	0.042	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	12.4	2.3	0.50	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13600	9.0	0.78	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	22.0	0.90	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	30000	450	4.6	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	395	1.4	0.036	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.018 B	0.033	0.0073	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	11.0	3.6	0.040	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	603	450	7.7	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 B	0.90	0.31	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.41 B	0.45	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	3280	450	3.0	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.23 B	0.90	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	21.9	0.90	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	31.8	1.8	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Prep QC Batch: MP22608
- (4) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL2-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-14	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.40  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.6		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	7.4		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> RL2-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-14A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.33 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0089 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.015 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.41  
 4

## Report of Analysis

<b>Client Sample ID:</b> RL2-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-14B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.6
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.051		0.010	0.0029	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.35 B		0.50	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0023 B		0.0040	0.00025	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0016 B		0.0040	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.085		0.010	0.0014	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.022 B		0.050	0.00040	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Iron	102		0.10	0.020	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.086		0.010	0.0017	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.93		0.015	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00020		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.077		0.040	0.00057	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0063 B		0.025	0.0048	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.33		0.10	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.42  
4

## Report of Analysis

<b>Client Sample ID:</b>	RL2-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-15	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.2
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63656.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	6.12 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.4	2.6	ug/kg	
71-43-2	Benzene	1.6	0.47	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.33	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.56	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.4	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	4.7	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.7	0.71	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.7	0.53	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.30	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.39	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.42	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.39	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.39	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.39	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	0.96	1.9	0.65	ug/kg	J
591-78-6	2-Hexanone	ND	9.4	0.71	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.7	0.51	ug/kg	
75-09-2	Methylene chloride	0.77	1.9	0.50	ug/kg	J
100-42-5	Styrene	ND	4.7	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.37	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.29	ug/kg	
108-88-3	Toluene	3.4	4.7	0.19	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RL2-3(0.5-1.5)-030414		<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-15		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 87.2
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.54	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.85	ug/kg	
1330-20-7	Xylene (total)	2.2	1.9	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.09	15	ug/kg	JN
109-66-0	Pentane	6.49	17	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	10	ug/kg	JN
110-54-3	Hexane	8.46	8.1	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	4.7	ug/kg	JN
	Unknown Cyclopropane	9.91	5.4	ug/kg	JN
142-82-5	Heptane	10.51	5.5	ug/kg	JN
26232-98-4	2-Pentene, 4,4-dimethyl-	11.18	8.6	ug/kg	JN
	Total TIC, Volatile		74.3	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
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## Report of Analysis

<b>Client Sample ID:</b>	RL2-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-15	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37404.D	1	03/11/14	KR	03/05/14	OP37063	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	570	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	570	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	570	93	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	570	71	ug/kg	
95-48-7	2-Methylphenol	ND	570	23	ug/kg	
106-44-5	4-Methylphenol	ND	570	29	ug/kg	
88-75-5	2-Nitrophenol	ND	570	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	570	40	ug/kg	
108-95-2	Phenol	ND	290	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	570	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	570	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	15	ug/kg	
106-47-8	4-Chloroaniline	ND	570	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RL2-3(0.5-1.5)-030414	<b>Date Sampled:</b>	03/04/14
<b>Lab Sample ID:</b>	MC28684-15	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	570	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	570	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	14	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	85.1	290	30	ug/kg	J
117-84-0	Di-n-octyl phthalate	ND	290	8.9	ug/kg	
84-66-2	Diethyl phthalate	ND	290	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	ND	110	16	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	570	140	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	570	14	ug/kg	
99-09-2	3-Nitroaniline	ND	570	31	ug/kg	
100-01-6	4-Nitroaniline	ND	570	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	290	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	84%		30-130%
4165-62-2	Phenol-d5	81%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	82%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RL2-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28684-15 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 87.2
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	98%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.68	6600	ug/kg JN
	Total TIC, Semi-Volatile		6600	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.43  
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# Report of Analysis

<b>Client Sample ID:</b> RL2-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.9	0.88	0.18	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	50.8	4.4	0.064	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.48	0.35	0.021	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.071 B	0.35	0.037	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	42500	440	5.5	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	15.9	0.88	0.084	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	7.2	4.4	0.041	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.8	2.2	0.49	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	17100	8.8	0.77	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	14.2	0.88	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	24800	440	4.5	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	341	1.3	0.035	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.015 B	0.035	0.0076	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	17.8	3.5	0.039	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	1240	440	7.6	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.34 B	0.88	0.31	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.46	0.44	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2930	440	2.9	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.20 B	0.88	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	26.0	0.88	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	41.9	1.8	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Prep QC Batch: MP22608
- (4) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL2-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-15	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.43  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.2		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	7.4		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> RL2-3(0.5-1.5)-030414	<b>Date Sampled:</b> 03/04/14
<b>Lab Sample ID:</b> MC28684-15A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.47 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0071 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	3.7			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0089 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.014 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL2-3(0.5-1.5)-030414 <b>Lab Sample ID:</b> MC28684-15B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/04/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 87.2
--	--

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.10		0.010	0.0029	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.86		0.50	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0065		0.0040	0.00025	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0030 B		0.0040	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.21		0.010	0.0014	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.079		0.050	0.00040	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.23		0.025	0.0070	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Iron	215		0.10	0.020	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.0		0.015	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00032		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.22		0.040	0.00057	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0089 B		0.025	0.0048	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.61		0.10	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.45  
4





### CHAIN OF CUSTODY

Accutest Laboratories of New England  
 495 Technology Center West, Building One  
 TEL: 508-481-6200 FAX: 508-481-7753  
 www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC 28684</b>

Client / Reporting Information			Project Information						Requested Analysis (see TEST CODE sheet)										Matrix Codes																																																																																																										
Company Name <b>Beston Solutions</b>			Project Name <b>IDOT-048 McHenry County</b>						<table border="1"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																																																																																																			DW - Drinking Water GW - Ground Water W7 - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address <b>750 E. Banker Ct Ste 500</b>			Street:																																																																																																																										
City State Zip <b>Vernon Hills IL 60081</b>			Billing Information (if different from Report to)																																																																																																																										
Project Contact <b>S. Babusan Kumar</b>			Company Name																																																																																																																										
Phone # Fax # <b>847-918-4018 -4055</b>			Street Address																																																																																																																										
Sampler Name(s) Phone # <b>David SING 847-918-4130</b>			Client PO#						City State Zip										LAB USE ONLY																																																																																																										
Project Manager <b>Matt Morvell</b>			Attention:						PO#																																																																																																																				
Collection			Number of preserved bottles																																																																																																																										
Accutest Sample #	Field ID / Point of Collection	MECH/DI/Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	PHOS	ISEDA	NO3	NO2	NOX	AMMON	EDD	EDD	EDD	EDD	EDD	EDD	EDD	EDD	EDD	EDD	EDD																																																																																																			
-1	35-1(0.5-1.5)-030314		3-3-14	10:30	DS	So	3																																																																																																																						
-2	35-2(0.5-1.5)-030314			11:00			3																																																																																																																						
-3	35-5(0.5-1.5)-030314			11:20			3																																																																																																																						
-4	VL15-1(0.5-1.5)-030314			11:40			3																																																																																																																						
-5	VL15-2(0.5-1.5)-030314			12:00			3																																																																																																																						
-6	VL15-3(0.5-1.5)-030314			12:25			3																																																																																																																						
-7	VL15-4(0.5-1.5)-030314			12:50			3																																																																																																																						
-8	RL4-2(0.5-1.5)-030314			12:00			3																																																																																																																						
-9	VL13-1(0.5-1.5)-030314			12:45			3																																																																																																																						
-10	VL13-2(0.5-1.5)-030314			13:10			3																																																																																																																						
-11	VL13-3(0.5-1.5)-030314			13:25			3																																																																																																																						
-12	VL13-4(0.5-1.5)-030314			13:50			3																																																																																																																						
-12	VL13-4(0.5-1.5)-030314			14:15			3																																																																																																																						
Turnaround Time (Business days)								Approved By (Accutest PM): / Date:								Data Deliverable Information								Comments / Special Instructions																																																																																																					
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY																<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____								Commercial "A" = Results Only Commercial "B" = Results + QC Summary  <b>14E, 6F1</b>																																																																																																					
Emergency & Rush T/A data available VIA Lablink																																																																																																																													
Sample Custody must be documented below each time samples change possession, including courier delivery.																																																																																																																													
Relinquished by Sampler: <b>1 David Senna</b>		Date Time: <b>3-4-14/15:15</b>		Received By: <b>1 Matt Morvell</b>		Date Time: <b>3-4-14 15:40</b>		Relinquished By: <b>1 Matt Morvell</b>		Date Time: <b>3/5/14 9:20</b>		Received By: <b>2 V. J. ...</b>		Date Time:		Received By:		CHICAGO SC																																																																																																											
Relinquished by Sampler: <b>3</b>		Date Time:		Received By: <b>3</b>		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:																																																																																																													
Relinquished by:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:																																																																																																													
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<b>5</b>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>		<b>1.1°C</b>																																																																																																																			

5.1  
5

MC28684: Chain of Custody

Page 1 of 3

FED-EX Tracking #	Batch Order Control #
Accutest Quote #	Accutest Job # <b>MC28684</b>

Client / Reporting Information			Project Information							Requested Analysis (see TEST CODE sheet)										Matrix Codes										
Company Name <b>Western Solutions</b>			Project Name <b>IDOT-048 McHenry County</b>							<div style="display: flex; justify-content: space-between;"> <span>VOCs</span> <span>SVOCs</span> <span>Total Metals</span> <span>TCUP/SLP Metals</span> <span>pH</span> </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank										
Street Address <b>750 E. Banker Ct Ste 500</b>			Street: <b>Keenan Hills, IL 60081</b>																											
City, State, Zip			City, State, Zip																											
Project Contact <b>S. Babusukumar</b>			Project #																											
Phone #, Fax #, E-mail			Client PO#																											
Sampler(s) Name(s) <b>F. ...</b>			Project Manager <b>Watt Maxwell</b>																											
Accutest Sample #	Field ID / Point of Collection	MECH/ID1 Vial #	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY												
								<input type="checkbox"/> NACH <input type="checkbox"/> NH3 <input type="checkbox"/> NH4 <input type="checkbox"/> NONE <input type="checkbox"/> DI Water <input type="checkbox"/> MEQH <input type="checkbox"/> ENCORE <input type="checkbox"/> Bifluoride																						
-13	RL2-1(0.5-1.5)-030314		3-3-14	14:30	DS	So	3																							
-14	RL2-2(0.5-1.5)-030314		3-3-14	14:50	DS	So	3																							
-15	RL2-3(0.5-1.5)-030414		3-4-14	8:00	DS	So	3																							
-16	RL2-4(0.5-1.5)-030414		3-4-14	8:25	DS	So	3																							
-17	RL2-4(0.5-1.5)-030414		3-4-14	8:25	DS	So	3																							
-18	RE13-1(0.5-1.5)-030414		3-4-14	8:45	DS	So	3																							
-19	RE13-2(0.5-1.5)-030414		3-4-14	9:05	DS	So	3																							
-20	RE13-3(0.5-1.5)-030414		3-4-14	9:25	DS	So	3																							

Data Deliverable Information				Comments / Special Instructions	
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>		Approved By (Accutest PM) / Date: _____		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>	

Sample Custody must be documented below each time samples change possession, including courier delivery.						CHICAGO SC
Relinquished by Sampler: <b>Award Ana</b>	Date Time: <b>3-4-14/15:15</b>	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time: <b>3/5/14 9:30</b>	Received By: <i>[Signature]</i>	
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	
3		3	4		4	
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact    Preserved where applicable	<input type="checkbox"/> On Ice    Cooler Temp.	
5		5		<input type="checkbox"/> Not Intact <input type="checkbox"/>	<input type="checkbox"/>	

MC28684: Chain of Custody

Page 2 of 3



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

13000 block of Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.298741304 Longitude: -88.454992041

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.298741304 Longitude: -88.454992041

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS RC-1 AND RC-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-70. SEE FIGURES 3-13 AND 4-14 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28738

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

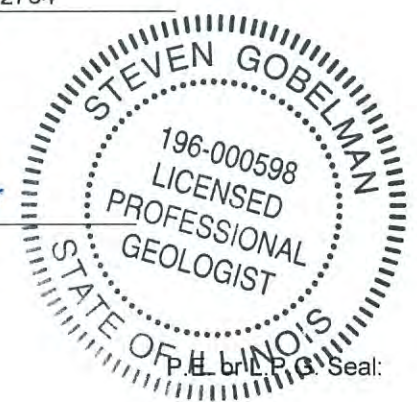
Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



Seal:

**Summary Table of ISGS Site No. 2792-70**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RC-1(0.5-1.5)-030614	RC-1(0.5-1.5)-030614D	RC-2(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RC-1	RC-1	RC-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.1	8.2	8	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Benzene	1.1	0.92	0.78	30
Methylene chloride	1.1 J	1 J	2.2 J	20
Toluene	1.7 J	1.4 J	1.7 J	12000
Xylene (Total)	1.6 J	1.3 J	2 J	5600
<b>SVOCs (ug/kg)</b>				
Benzo(a)anthracene	172 J	99.1 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	161 J	105 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	205 J	130 J	ND	900 / 1500 / 2100
Benzo(k)fluoranthene	139 J	85.8 J	ND	9000
bis(2-Ethylhexyl)phthalate	ND	79.9 J	17.6 J	46000
Butyl benzyl phthalate	ND	76.8 J	ND	930000
Chrysene	213 J	128 J	ND	88000
Fluoranthene	367 J	188 J	ND	3100000
Indeno(1,2,3-cd)pyrene	127 J	85.1 J	ND	900 / 900 / 1600
Phenanthrene	158 J	ND	ND	210000
Pyrene	305 J	168 J	ND	2300000
<b>Total Metals (mg/kg)</b>				
Antimony, Total	0.19 J	ND	0.19 J	5
Arsenic, Total	7.1	4.8	3.5	11.3 / 13
Barium, Total	51.6	41.5	57.5	1500
Beryllium, Total	0.28 J	0.23 J	0.17 J	22
Cadmium, Total	0.15 J	0.2 J	0.33 J	5.2
Calcium, Total	48300 J	73100 J	113000 J	---
Chromium, Total	12	13	19.9	21
Cobalt, Total	5.5	4.5 J	3.9 J	20
Copper, Total	15.7	16.7	19.3	2900
Iron, Total	15300	12400	10000	15000 / 15900
Lead, Total	30.5	47.4	41.2	107
Magnesium, Total	27100 J	36700 J	49600 J	325000
Manganese, Total	407 J	367 J	384 J	630 / 636
Mercury, Total	0.0085 J	0.013 J	0.015 J	0.89
Nickel, Total	12.3	10.5	10.7	100
Potassium, Total	664	557	399 J	---
Selenium, Total	0.54 J	ND	0.41 J	1.3
Silver, Total	0.21 J	0.13 J	ND	4.4
Sodium, Total	2830 J	2560 J	2100 J	---
Thallium, Total	0.15 J	0.14 J	0.18 J	2.6
Vanadium, Total	22.1	18.2	17.3	550
Zinc, Total	48.7 J	59.5 J	81.9 J	5100
<b>TCLP Metals (mg/l)</b>				
Barium, TCLP	0.43 J	0.41 J	0.26 J	2
Cadmium, TCLP	0.002 J	0.0018 J	0.0017 J	0.005
Chromium, TCLP	ND	ND	0.0028 J	0.1
Cobalt, TCLP	0.0064 J	0.0019 J	ND	1
Copper, TCLP	0.01 J	0.011 J	0.013 J	0.65
Iron, TCLP	0.028 J	ND	ND	5
Lead, TCLP	0.0052 J	0.0049 J	0.0027 J	0.0075
Manganese, TCLP	3.5	2.5	0.1	0.15
Nickel, TCLP	0.014 J	0.012 J	0.013 J	0.1
Selenium, TCLP	0.0058 J	0.0066 J	0.0056 J	0.05
Zinc, TCLP	0.062 J	0.068 J	0.052 J	5

**Summary Table of ISGS Site No. 2792-70**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RC-1(0.5-1.5)-030614	RC-1(0.5-1.5)-030614D	RC-2(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	RC-1	RC-1	RC-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.022	0.024	0.019	0.05
Barium, SPLP	0.46 J	0.52	0.24 J	2
Beryllium, SPLP	0.0021 J	0.0025 J	0.0009 J	0.004
Cadmium, SPLP	0.0014 J	0.0017 J	0.0006 J	0.005
Chromium, SPLP	0.083	0.097	0.039	0.1
Cobalt, SPLP	0.021 J	0.026 J	0.012 J	1
Copper, SPLP	0.09	0.1	0.069	0.65
Iron, SPLP	74.3	88.1	53.9	5
Lead, SPLP	0.16	0.18	0.075	0.0075
Manganese, SPLP	0.77	0.94	0.57	0.15
Mercury, SPLP	0.00013 J	0.00022 J	ND	0.002
Nickel, SPLP	0.064	0.076	0.042	0.1
Selenium, SPLP	ND	0.0066 J	ND	0.05
Zinc, SPLP	0.35 J	0.41 J	0.21 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28738

Sampling Date: 03/06/14

Report to:

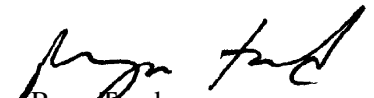
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **298**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63863.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.92 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	1.1	0.58	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.88	ug/kg	
67-66-3	Chloroform	ND	2.3	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.66	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.48	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.81	ug/kg	
591-78-6	2-Hexanone	ND	12	0.88	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.8	0.63	ug/kg	
75-09-2	Methylene chloride	1.1	2.3	0.62	ug/kg	J
100-42-5	Styrene	ND	5.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.46	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.37	ug/kg	
108-88-3	Toluene	1.7	5.8	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.67	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.1	ug/kg	
1330-20-7	Xylene (total)	1.6	2.3	0.26	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	39	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	15	ug/kg	JN
109-66-0	Pentane	6.49	15	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	7.4	ug/kg	JN
110-54-3	Hexane	8.46	10	ug/kg	JN
	Total TIC, Volatile		86.4	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-4	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 87.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71760.D	5	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	64	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2900	72	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2900	82	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2900	470	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5700	710	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	360	ug/kg	
95-48-7	2-Methylphenol	ND	2900	110	ug/kg	
106-44-5	4-Methylphenol	ND	2900	150	ug/kg	
88-75-5	2-Nitrophenol	ND	2900	76	ug/kg	
100-02-7	4-Nitrophenol	ND	5700	540	ug/kg	
87-86-5	Pentachlorophenol	ND	2900	200	ug/kg	
108-95-2	Phenol	ND	1400	81	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2900	71	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2900	70	ug/kg	
83-32-9	Acenaphthene	ND	570	76	ug/kg	
208-96-8	Acenaphthylene	ND	570	57	ug/kg	
120-12-7	Anthracene	ND	570	69	ug/kg	
56-55-3	Benzo(a)anthracene	172	570	74	ug/kg	J
50-32-8	Benzo(a)pyrene	161	570	61	ug/kg	J
205-99-2	Benzo(b)fluoranthene	205	570	71	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	570	57	ug/kg	
207-08-9	Benzo(k)fluoranthene	139	570	86	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	1400	72	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	58	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	77	ug/kg	
106-47-8	4-Chloroaniline	ND	2900	71	ug/kg	
86-74-8	Carbazole	ND	570	67	ug/kg	
218-01-9	Chrysene	213	570	71	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	67	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	87	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	87	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	RC-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-4	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	74	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	82	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	76	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2900	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2900	71	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	570	68	ug/kg	
132-64-9	Dibenzofuran	ND	570	79	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	45	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	71	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	83	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	53	ug/kg	
206-44-0	Fluoranthene	367	570	78	ug/kg	J
86-73-7	Fluorene	ND	570	76	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	89	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	83	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2900	710	ug/kg	
67-72-1	Hexachloroethane	ND	1400	69	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	127	570	63	ug/kg	J
78-59-1	Isophorone	ND	1400	66	ug/kg	
91-57-6	2-Methylnaphthalene	ND	570	72	ug/kg	
88-74-4	2-Nitroaniline	ND	2900	71	ug/kg	
99-09-2	3-Nitroaniline	ND	2900	160	ug/kg	
100-01-6	4-Nitroaniline	ND	2900	71	ug/kg	
91-20-3	Naphthalene	ND	570	92	ug/kg	
98-95-3	Nitrobenzene	ND	1400	77	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	82	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	86	ug/kg	
85-01-8	Phenanthrene	158	570	77	ug/kg	J
129-00-0	Pyrene	305	570	67	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	79	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	61%		30-130%
4165-62-2	Phenol-d5	57%		30-130%
118-79-6	2,4,6-Tribromophenol	68%		30-130%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	81%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5200	ug/kg	JN
	Total TIC, Semi-Volatile		5200	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

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## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.19 B	0.94	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	7.1	0.94	0.20	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	51.6	4.7	0.068	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.28 B	0.38	0.022	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.15 B	0.38	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	48300	470	5.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	12.0	0.94	0.089	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.5	4.7	0.044	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	15.7	2.4	0.52	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	15300	9.4	0.82	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	30.5	0.94	0.16	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	27100	470	4.8	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	407	1.4	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0085 B	0.037	0.0081	mg/kg	1	03/18/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.3	3.8	0.041	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	664	470	8.1	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.54 B	0.94	0.33	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.21 B	0.47	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2830	470	3.1	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.15 B	0.94	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	22.1	0.94	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	48.7	1.9	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16883
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22686

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-4	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	87.1		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.1		su	1	03/12/14	MA	SW846 9045D

---

RL = Reporting Limit

### Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-4A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.43 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0020 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0064 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.010 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.028 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0052 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.5			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0058 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.062 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.11  
4

## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-4B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 87.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.022		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.46 B		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0021 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.083		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.021 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.090		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	74.3		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.77		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00013 B		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.064		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.35		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.12  
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## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614D	
<b>Lab Sample ID:</b> MC28738-5	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63864.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.68 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/kg	
71-43-2	Benzene	0.92	0.50	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.35	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.60	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.75	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.56	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.32	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.41	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.45	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.42	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	0.69	ug/kg	
591-78-6	2-Hexanone	ND	10	0.76	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	0.54	ug/kg	
75-09-2	Methylene chloride	1.0	2.0	0.53	ug/kg	J
100-42-5	Styrene	ND	5.0	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.39	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.31	ug/kg	
108-88-3	Toluene	1.4	5.0	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-5	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.57	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.91	ug/kg	
1330-20-7	Xylene (total)	1.3	2.0	0.22	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	22	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	8.1	ug/kg	JN
109-66-0	Pentane	6.49	9.6	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	4.5	ug/kg	JN
110-54-3	Hexane	8.46	6.4	ug/kg	JN
	Total TIC, Volatile		50.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.13  
4

## Report of Analysis

<b>Client Sample ID:</b>	RC-1(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-5	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71761.D	5	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	63	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	71	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5600	700	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	350	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5600	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	200	ug/kg	
108-95-2	Phenol	ND	1400	79	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	70	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	69	ug/kg	
83-32-9	Acenaphthene	ND	560	74	ug/kg	
208-96-8	Acenaphthylene	ND	560	56	ug/kg	
120-12-7	Anthracene	ND	560	67	ug/kg	
56-55-3	Benzo(a)anthracene	99.1	560	72	ug/kg	J
50-32-8	Benzo(a)pyrene	105	560	60	ug/kg	J
205-99-2	Benzo(b)fluoranthene	130	560	70	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	560	56	ug/kg	
207-08-9	Benzo(k)fluoranthene	85.8	560	84	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	76.8	1400	57	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	70	ug/kg	
86-74-8	Carbazole	ND	560	66	ug/kg	
218-01-9	Chrysene	128	560	69	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	85	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	100	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	85	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RC-1(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-5	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	72	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	80	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	74	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	190	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	70	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	560	66	ug/kg	
132-64-9	Dibenzofuran	ND	560	77	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	70	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	79.9	1400	51	ug/kg	J
206-44-0	Fluoranthene	188	560	76	ug/kg	J
86-73-7	Fluorene	ND	560	74	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	87	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	81	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	700	ug/kg	
67-72-1	Hexachloroethane	ND	1400	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	85.1	560	61	ug/kg	J
78-59-1	Isophorone	ND	1400	64	ug/kg	
91-57-6	2-Methylnaphthalene	ND	560	71	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	70	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	70	ug/kg	
91-20-3	Naphthalene	ND	560	89	ug/kg	
98-95-3	Nitrobenzene	ND	1400	75	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	80	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	84	ug/kg	
85-01-8	Phenanthrene	ND	560	75	ug/kg	
129-00-0	Pyrene	168	560	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	77	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	71%		30-130%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-5	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	83%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5500	ug/kg	JN
	Total TIC, Semi-Volatile		5500	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.13  
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# Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-5	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.94	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.8	0.94	0.20	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	41.5	4.7	0.068	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.23 B	0.38	0.022	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.20 B	0.38	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	73100	4700	59	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	13.0	0.94	0.089	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.5 B	4.7	0.044	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	16.7	2.3	0.52	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12400	9.4	0.82	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	47.4	0.94	0.16	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	36700	470	4.8	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	367	1.4	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.013 B	0.034	0.0076	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.5	3.8	0.041	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	557	470	8.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.33 U	0.94	0.33	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.13 B	0.47	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2560	470	3.1	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.14 B	0.94	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.2	0.94	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	59.5	1.9	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16884
- (3) Instrument QC Batch: MA16889
- (4) Prep QC Batch: MP22657
- (5) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-5	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.1		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.2		su	1	03/12/14	MA	SW846 9045D

RL = Reporting Limit

4.13  
**4**

# Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-5A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.41 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0018 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0019 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0049 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.5			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.012 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0066 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.068 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

4.14  
4



## Report of Analysis

<b>Client Sample ID:</b> RC-1(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-5B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.024		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.52		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0025 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0017 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.097		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.026 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.10		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	88.1		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.18		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.94		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00022		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.076		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0066 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.41		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.15  
4

## Report of Analysis

<b>Client Sample ID:</b>	RC-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-6	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	80.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63865.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.53 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	3.8	ug/kg	
71-43-2	Benzene	0.78	0.68	0.46	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.29	ug/kg	
75-25-2	Bromoform	ND	2.7	0.49	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.82	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.2	ug/kg	
75-15-0	Carbon disulfide	ND	6.8	0.18	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.7	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.22	ug/kg	
75-00-3	Chloroethane	ND	6.8	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.8	0.77	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.44	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.57	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.62	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.57	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.57	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.57	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.36	ug/kg	
100-41-4	Ethylbenzene	ND	2.7	0.94	ug/kg	
591-78-6	2-Hexanone	ND	14	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.8	0.74	ug/kg	
75-09-2	Methylene chloride	2.2	2.7	0.73	ug/kg	J
100-42-5	Styrene	ND	6.8	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.54	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.43	ug/kg	
108-88-3	Toluene	1.7	6.8	0.28	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.30	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RC-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-6	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.79	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.34	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	2.0	2.7	0.30	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	4.9	ug/kg	JN
109-66-0	Pentane	6.48	9.8	ug/kg	JN
	Total TIC, Volatile		14.7	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.16  
4

## Report of Analysis

<b>Client Sample ID:</b>	RC-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-6	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	80.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71762.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	310	14	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	620	16	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	620	18	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	620	100	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	620	77	ug/kg	
95-48-7	2-Methylphenol	ND	620	25	ug/kg	
106-44-5	4-Methylphenol	ND	620	32	ug/kg	
88-75-5	2-Nitrophenol	ND	620	17	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	120	ug/kg	
87-86-5	Pentachlorophenol	ND	620	44	ug/kg	
108-95-2	Phenol	ND	310	18	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	620	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	620	15	ug/kg	
83-32-9	Acenaphthene	ND	120	17	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	15	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	16	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	19	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	310	16	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	310	13	ug/kg	
91-58-7	2-Chloronaphthalene	ND	310	17	ug/kg	
106-47-8	4-Chloroaniline	ND	620	15	ug/kg	
86-74-8	Carbazole	ND	120	15	ug/kg	
218-01-9	Chrysene	ND	120	15	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	310	15	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	310	19	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	310	22	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	310	19	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RC-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-6	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	80.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	310	16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	310	18	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	310	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	620	41	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	620	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	310	31	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	15	ug/kg	
132-64-9	Dibenzofuran	ND	120	17	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	310	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	310	9.7	ug/kg	
84-66-2	Diethyl phthalate	ND	310	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	310	18	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	17.6	310	11	ug/kg	J
206-44-0	Fluoranthene	ND	120	17	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	310	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	310	18	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	620	150	ug/kg	
67-72-1	Hexachloroethane	ND	310	15	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	14	ug/kg	
78-59-1	Isophorone	ND	310	14	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	16	ug/kg	
88-74-4	2-Nitroaniline	ND	620	15	ug/kg	
99-09-2	3-Nitroaniline	ND	620	34	ug/kg	
100-01-6	4-Nitroaniline	ND	620	15	ug/kg	
91-20-3	Naphthalene	ND	120	20	ug/kg	
98-95-3	Nitrobenzene	ND	310	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	310	18	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	310	19	ug/kg	
85-01-8	Phenanthrene	ND	120	17	ug/kg	
129-00-0	Pyrene	ND	120	15	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	310	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	84%		30-130%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RC-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-6 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 80.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	91%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	6200	ug/kg	JN
	Total TIC, Semi-Volatile		6200	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.16  
4

# Report of Analysis

<b>Client Sample ID:</b> RC-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-6	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.19 B	1.0	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	3.5	1.0	0.21	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	57.5	5.0	0.073	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.17 B	0.40	0.024	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.33 B	0.40	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	113000	5000	63	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	19.9	1.0	0.095	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.9 B	5.0	0.047	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	19.3	2.5	0.56	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10000	10	0.87	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	41.2	1.0	0.17	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	49600	500	5.1	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	384	1.5	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.038	0.0084	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.7	4.0	0.044	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	399 B	500	8.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.41 B	1.0	0.35	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.13 U	0.50	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2100	500	3.3	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.18 B	1.0	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.3	1.0	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	81.9	2.0	0.16	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16884
- (3) Instrument QC Batch: MA16889
- (4) Prep QC Batch: MP22657
- (5) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RC-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-6	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.16  
4

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	80.6		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.0		su	1	03/12/14	MA	SW846 9045D

---

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> RC-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-6A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.26 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0028 B	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.013 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0027 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.10			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0056 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.052 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.17  
4

## Report of Analysis

<b>Client Sample ID:</b> RC-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-6B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.019		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.24 B		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00090 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00060 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.039		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.012 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.069		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	53.9		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.075		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.57		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.042		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.21		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

12000 block of Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.297550163 Longitude: -88.448217192

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.297550163 Longitude: -88.448217192

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS VL12-2, VL12-3 AND VL12-4 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-72. SEE FIGURE 3-14 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28738

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

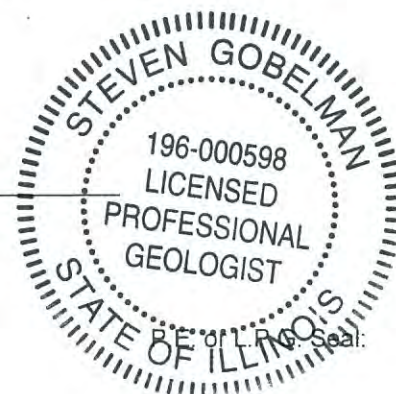
Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-72**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL12-2(0.5-1.5)-030614	VL12-3(0.5-1.5)-030614	VL12-4(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	VL12-2	VL12-3	VL12-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.8	8.4	8.5	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Benzene	2.7	1.5	2.2	30
Carbon disulfide	2.1 J	8.2	1.8 J	9000
Ethylbenzene	1.4 J	ND	1.4 J	13000
Methylene chloride	1.6 J	1.4 J	1.6 J	20
Toluene	5.2 J	2.4 J	4.6 J	12000
Xylene (Total)	3.3	1.7 J	3.5	5600
<b>SVOCs (ug/kg)</b>				
Acenaphthylene	ND	ND	87.9 J	85000
Benzo(a)pyrene	13 J	ND	ND	90 / 1300 / 2100
bis(2-Ethylhexyl)phthalate	34 J	47.4 J	41.2 J	46000
Butyl benzyl phthalate	43.7 J	ND	ND	930000
Dimethyl phthalate	ND	ND	307	---
Fluoranthene	19.2 J	ND	ND	3100000
Fluorene	ND	ND	18.9 J	560000
Pyrene	17.5 J	15.1 J	ND	2300000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	5.2	5.3	5.4	11.3 / 13
Barium, Total	36.2	53.6	33.4	1500
Beryllium, Total	0.22 J	0.34 J	0.29 J	22
Cadmium, Total	0.083 J	0.095 J	0.078 J	5.2
Calcium, Total	83400 J	40200 J	44600 J	---
Chromium, Total	8.5	9.7	9.8	21
Cobalt, Total	4.9	5.9	4.7	20
Copper, Total	13.8	10.7	11.4	2900
Iron, Total	11500	12400	12700	15000 / 15900
Lead, Total	50.2	13.2	7.5	107
Magnesium, Total	38800 J	21900 J	23100 J	325000
Manganese, Total	382 J	369 J	332 J	630 / 636
Mercury, Total	0.014 J	0.024 J	0.015 J	0.89
Nickel, Total	10.9	11.8	11.4	100
Potassium, Total	529	669	565	---
Selenium, Total	ND	0.43 J	0.79 J	1.3
Silver, Total	ND	0.15 J	0.28 J	4.4
Sodium, Total	2380 J	2660 J	1790 J	---
Thallium, Total	0.29 J	ND	0.54 J	2.6
Vanadium, Total	19.1	20.4	22.6	550
Zinc, Total	36.4 J	31.9 J	30.1 J	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	ND	0.0038 J	ND	0.05
Barium, TCLP	0.47 J	0.72	0.41 J	2
Cadmium, TCLP	0.0012 J	0.0017 J	0.001 J	0.005
Cobalt, TCLP	ND	0.021 J	0.0007 J	1
Copper, TCLP	0.0099 J	0.012 J	0.024 J	0.65
Iron, TCLP	ND	0.048 J	ND	5
Lead, TCLP	0.0051 J	0.0028 J	0.0039 J	0.0075
Manganese, TCLP	0.93	7.2	1.3	0.15
Nickel, TCLP	0.0085 J	0.024 J	0.011 J	0.1
Selenium, TCLP	0.0051 J	0.0061 J	0.0067 J	0.05
Zinc, TCLP	0.013 J	0.01 J	0.012 J	5

**Summary Table of ISGS Site No. 2792-72**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL12-2(0.5-1.5)-030614	VL12-3(0.5-1.5)-030614	VL12-4(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	3/6/2014	3/6/2014	
Location ID	VL12-2	VL12-3	VL12-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.043	0.055	0.049	0.05
Barium, SPLP	0.57	0.56	0.52	2
Beryllium, SPLP	0.003 J	0.0041 J	0.0032 J	0.004
Cadmium, SPLP	0.0016 J	0.0016 J	0.0015 J	0.005
Chromium, SPLP	0.098	0.12	0.1	0.1
Cobalt, SPLP	0.023 J	0.042 J	0.025 J	1
Copper, SPLP	0.13	0.13	0.12	0.65
Iron, SPLP	116	134	119	5
Lead, SPLP	0.31	0.16	0.17	0.0075
Manganese, SPLP	1.3	2.3	1.6	0.15
Mercury, SPLP	0.00022 J	0.0003 J	0.00028 J	0.002
Nickel, SPLP	0.084	0.11	0.087	0.1
Selenium, SPLP	0.0058 J	0.0053 J	0.0059 J	0.05
Zinc, SPLP	0.4 J	0.38 J	0.37 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.



Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28738

Sampling Date: 03/06/14

Report to:

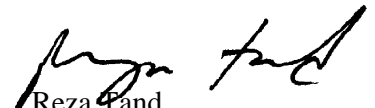
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **298**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> VL12-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-9	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63868.D	1	03/18/14	KD	n/a	n/a	MSM2239

Run #1	Initial Weight	Final Volume
Run #2	4.04 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	3.9	ug/kg	
71-43-2	Benzene	2.7	0.70	0.47	ug/kg	
75-27-4	Bromodichloromethane	ND	2.8	0.29	ug/kg	
75-25-2	Bromoform	ND	2.8	0.50	ug/kg	
74-83-9	Bromomethane	ND	2.8	0.84	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.3	ug/kg	
75-15-0	Carbon disulfide	2.1	7.0	0.18	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.8	0.31	ug/kg	
108-90-7	Chlorobenzene	ND	2.8	0.22	ug/kg	
75-00-3	Chloroethane	ND	7.0	1.1	ug/kg	
67-66-3	Chloroform	ND	2.8	0.24	ug/kg	
74-87-3	Chloromethane	ND	7.0	0.79	ug/kg	
124-48-1	Dibromochloromethane	ND	2.8	0.45	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.8	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.8	0.45	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.8	0.58	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.8	0.63	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.8	0.58	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.8	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.8	0.59	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.8	0.32	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	0.37	ug/kg	
100-41-4	Ethylbenzene	1.4	2.8	0.97	ug/kg	J
591-78-6	2-Hexanone	ND	14	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.8	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.0	0.76	ug/kg	
75-09-2	Methylene chloride	1.6	2.8	0.74	ug/kg	J
100-42-5	Styrene	ND	7.0	0.24	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.8	0.55	ug/kg	
127-18-4	Tetrachloroethene	ND	2.8	0.44	ug/kg	
108-88-3	Toluene	5.2	7.0	0.29	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.8	0.30	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.25  
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## Report of Analysis

<b>Client Sample ID:</b> VL12-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.8	0.80	ug/kg	
79-01-6	Trichloroethene	ND	2.8	0.34	ug/kg	
75-01-4	Vinyl chloride	ND	2.8	1.3	ug/kg	
1330-20-7	Xylene (total)	3.3	2.8	0.31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	63	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	31	ug/kg	JN
109-66-0	Pentane	6.48	25	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	18	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	8.4	ug/kg	JN
110-54-3	Hexane	8.46	17	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	9.6	ug/kg	JN
110-82-7	Cyclohexane	9.92	10	ug/kg	JN
142-82-5	Heptane	10.51	10	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	15	ug/kg	JN
	Total TIC, Volatile		207	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.25  
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## Report of Analysis

<b>Client Sample ID:</b>	VL12-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-9	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71765.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	13.0	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	43.7	280	12	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL12-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-9	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	34.0	280	10	ug/kg	J
206-44-0	Fluoranthene	19.2	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	17.5	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	88%		30-130%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL12-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.4
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL12-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-9	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.2	0.92	0.19	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	36.2	4.6	0.067	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.22 B	0.37	0.022	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.083 B	0.37	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	83400	4600	58	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	8.5	0.92	0.087	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.9	4.6	0.043	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	13.8	2.3	0.51	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11500	9.2	0.80	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	50.2	0.92	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	38800	460	4.7	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	382	1.4	0.037	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.014 B	0.036	0.0079	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	10.9	3.7	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	529	460	7.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.46	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2380	460	3.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.29 B	0.92	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	19.1	0.92	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	36.4	1.8	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16884
- (3) Instrument QC Batch: MA16889
- (4) Prep QC Batch: MP22657
- (5) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL12-2(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-9 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.4
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.4		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.8		su	1	03/12/14	MA	SW846 9045D

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RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> VL12-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-9A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.47 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0099 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0051 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.93			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0085 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0051 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.013 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL12-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-9B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.043		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.57		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0030 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0016 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.098		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.023 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	116		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.31		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.3		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00022		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.084		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0058 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.40		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL12-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63869.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	4.31 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.8	ug/kg	
71-43-2	Benzene	1.5	0.67	0.45	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.28	ug/kg	
75-25-2	Bromoform	ND	2.7	0.48	ug/kg	
74-83-9	Bromomethane	ND	2.7	0.81	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	4.1	ug/kg	
75-15-0	Carbon disulfide	8.2	6.7	0.18	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.7	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.7	1.0	ug/kg	
67-66-3	Chloroform	ND	2.7	0.23	ug/kg	
74-87-3	Chloromethane	ND	6.7	0.76	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.44	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.7	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.7	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.7	0.56	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.7	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.7	0.56	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.7	0.56	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.57	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.31	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.35	ug/kg	
100-41-4	Ethylbenzene	ND	2.7	0.93	ug/kg	
591-78-6	2-Hexanone	ND	13	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.7	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.7	0.73	ug/kg	
75-09-2	Methylene chloride	1.4	2.7	0.72	ug/kg	J
100-42-5	Styrene	ND	6.7	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.53	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.42	ug/kg	
108-88-3	Toluene	2.4	6.7	0.28	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.29	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL12-3(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-10	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.77	ug/kg	
79-01-6	Trichloroethene	ND	2.7	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	1.2	ug/kg	
1330-20-7	Xylene (total)	1.7	2.7	0.30	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	52	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	25	ug/kg	JN
109-66-0	Pentane	6.48	25	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	13	ug/kg	JN
110-54-3	Hexane	8.46	15	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	6.8	ug/kg	JN
110-82-7	Cyclohexane	9.91	7.1	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	11	ug/kg	JN
95-63-6	Benzene, 1,2,4-trimethyl-	15.81	67	ug/kg	JN
	Total TIC, Volatile		221.9	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.28  
4

## Report of Analysis

<b>Client Sample ID:</b>	VL12-3(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-10	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71766.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	92	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	110	ug/kg	
87-86-5	Pentachlorophenol	ND	560	40	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> VL12-3(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-10 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 86.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	81%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5200	ug/kg	JN
	Total TIC, Semi-Volatile		5200	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL12-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.95	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.3	0.95	0.20	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	53.6	4.8	0.069	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.34 B	0.38	0.023	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.095 B	0.38	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	40200	480	6.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	9.7	0.95	0.090	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.9	4.8	0.045	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	10.7	2.4	0.53	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	12400	9.5	0.83	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	13.2	0.95	0.16	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	21900	480	4.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	369	1.4	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.024 B	0.037	0.0081	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	11.8	3.8	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	669	480	8.1	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.43 B	0.95	0.33	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.15 B	0.48	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2660	480	3.2	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.13 U	0.95	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	20.4	0.95	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	31.9	1.9	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16889
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> VL12-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-10	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.1		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/12/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> VL12-3(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-10A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 86.1
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0038 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.72	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0017 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.021 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.012 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.048 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0028 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	7.2			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.024 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0061 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.010 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.29  
4

## Report of Analysis

<b>Client Sample ID:</b> VL12-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-10B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.055		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.56		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0041		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0016 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.042 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	134		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.16		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.3		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00030		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0053 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.38		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.30  
4

# Report of Analysis

<b>Client Sample ID:</b> VL12-4(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-11	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63872.D	1	03/18/14	KD	n/a	n/a	MSM2239

Run #1	Initial Weight	Final Volume
Run #2	4.60 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.3	ug/kg	
71-43-2	Benzene	2.2	0.59	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.25	ug/kg	
75-25-2	Bromoform	ND	2.4	0.42	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.6	ug/kg	
75-15-0	Carbon disulfide	1.8	5.9	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.4	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.89	ug/kg	
67-66-3	Chloroform	ND	2.4	0.20	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.32	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.38	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.53	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.49	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.50	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.31	ug/kg	
100-41-4	Ethylbenzene	1.4	2.4	0.82	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.90	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.9	0.64	ug/kg	
75-09-2	Methylene chloride	1.6	2.4	0.63	ug/kg	J
100-42-5	Styrene	ND	5.9	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.37	ug/kg	
108-88-3	Toluene	4.6	5.9	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.26	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> VL12-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.68	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.29	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	3.5	2.4	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	51	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	23	ug/kg	JN
109-66-0	Pentane	6.48	19	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	14	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7.1	ug/kg	JN
110-54-3	Hexane	8.46	14	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	7.5	ug/kg	JN
110-82-7	Cyclohexane	9.91	7.8	ug/kg	JN
142-82-5	Heptane	10.51	6.5	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
	Total TIC, Volatile		161.9	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	VL12-4(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-11	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71767.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
106-44-5	4-Methylphenol	ND	520	27	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	87.9	100	10	ug/kg	J
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL12-4(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-11	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.2	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	307	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	41.2	260	9.7	ug/kg	J
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	18.9	100	14	ug/kg	J
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	12	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	13	ug/kg	
99-09-2	3-Nitroaniline	ND	520	29	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	83%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL12-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	87%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5000	ug/kg	JN
	Total TIC, Semi-Volatile		5000	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL12-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.4	0.87	0.18	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	33.4	4.4	0.063	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.29 B	0.35	0.021	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.078 B	0.35	0.037	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	44600	440	5.5	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	9.8	0.87	0.083	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	4.7	4.4	0.041	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	11.4	2.2	0.48	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	12700	8.7	0.76	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	7.5	0.87	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	23100	440	4.5	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	332	1.3	0.035	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.015 B	0.034	0.0074	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	11.4	3.5	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	565	440	7.5	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.79 B	0.87	0.30	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.28 B	0.44	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1790	440	2.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.54 B	0.87	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	22.6	0.87	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	30.1	1.7	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16889
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL12-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-11	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	91.8		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.5		su	1	03/12/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> VL12-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-11A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.41 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00070 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.024 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0039 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.011 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0067 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.012 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL12-4(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-11B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.049		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.52		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0032 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0015 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.10		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.025 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.12		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	119		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.17		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.6		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00028		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.087		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0059 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.37		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.33  
4







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

12000 block of Wagner Lane

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.297744801 Longitude: -88.448913814

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.297744801 Longitude: -88.448913814

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS VL13-1, VL13-2, VL13-3 AND VL13-4 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-74. SEE FIGURE 3-14 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28684

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:





**Summary Table of ISGS Site No. 2792-74**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL13-1(0.5-1.5)-030314	VL13-2(0.5-1.5)-030314	VL13-3(0.5-1.5)-030314	VL13-4(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/3/2014	3/3/2014	
Location ID	VL13-1	VL13-2	VL13-3	VL13-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	9	8.5	7.8	7.6	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Benzene	2.7	1.7	1.9	0.6	30
Carbon disulfide	0.46 J	ND	ND	ND	9000
Chloroform	ND	ND	ND	0.9 J	300
Ethylbenzene	1.5 J	0.9 J	1.2 J	ND	13000
Methylene chloride	1.4 J	1.1 J	1.3 J	1.8 J	20
Toluene	6.6	3.3 J	4.1 J	0.83 J	12000
Xylene (Total)	4.7	2.1	2.8	0.47 J	5600
<b>SVOCs (ug/kg)</b>					
Benzo(a)anthracene	ND	42.6 J	20.5 J	ND	900 / 1100 / 1800
Benzo(a)pyrene	ND	46.5 J	22.9 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	63.9 J	36.7 J	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	ND	41 J	ND	ND	2300000
Benzo(k)fluoranthene	ND	18.6 J	ND	ND	9000
bis(2-Ethylhexyl)phthalate	17.3 J	21.4 J	28.7 J	ND	46000
Chrysene	ND	38 J	18.6 J	ND	88000
Di-N-Butyl phthalate	ND	ND	45.7 J	ND	2300000
Fluoranthene	ND	58.7 J	43.4 J	ND	3100000
Indeno(1,2,3-cd)pyrene	ND	31.9 J	ND	ND	900 / 900 / 1600
Phenanthrene	ND	ND	20 J	ND	210000
Pyrene	ND	51.3 J	34.6 J	ND	2300000
<b>Total Metals (mg/kg)</b>					
Arsenic, Total	4.9	4.8	4.4	2.3	11.3 / 13
Barium, Total	44.6	33.1	26.2	74.6	1500
Beryllium, Total	0.15 J	0.22 J	0.19 J	0.47	22
Cadmium, Total	0.2 J	0.054 J	0.12 J	0.42	5.2
Calcium, Total	121000	75100	65100	4520	---
Chromium, Total	10.4	8.7	10.4	14	21
Cobalt, Total	3.4 J	4 J	4.2 J	3.7 J	20
Copper, Total	15.9	9.4	10.9	14.2	2900
Iron, Total	12400	10300	10800	7860	15000 / 15900
Lead, Total	34.2	12.7	31	12.4	107
Magnesium, Total	59500	34200	33100	2340	325000
Manganese, Total	379	318	298	260	630 / 636
Mercury, Total	0.01 J	0.015 J	0.0086 J	0.026 J	0.89
Nickel, Total	9.5	9	9.7	12.9	100
Potassium, Total	504 J	669 J	602 J	678 J	---
Selenium, Total	ND	ND	ND	0.39 J	1.3
Silver, Total	0.37 J	0.32 J	0.28 J	0.41 J	4.4
Sodium, Total	1750	2500	2490	3720	---
Thallium, Total	0.39 J	0.27 J	0.23 J	0.15 J	2.6
Vanadium, Total	17.4	18.9	19.6	17.4	550
Zinc, Total	49.8	28.2	37.3	41.3	5100

**Summary Table of ISGS Site No. 2792-74**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL13-1(0.5-1.5)-030314	VL13-2(0.5-1.5)-030314	VL13-3(0.5-1.5)-030314	VL13-4(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/3/2014	3/3/2014	
Location ID	VL13-1	VL13-2	VL13-3	VL13-4	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
<b>TCLP Metals (mg/l)</b>					
Barium, TCLP	0.47 J	0.44 J	0.58	0.52	2
Cadmium, TCLP	0.0016 J	0.0013 J	0.0019 J	0.0015 J	0.005
Cobalt, TCLP	0.0022 J	0.0011 J	0.0011 J	0.0013 J	1
Copper, TCLP	ND	ND	ND	0.0072 J	0.65
Iron, TCLP	ND	ND	ND	0.026 J	5
Lead, TCLP	ND	ND	0.0033 J	0.0021 J	0.0075
Manganese, TCLP	1.4	1.4	3	2.4	0.15
Nickel, TCLP	0.016 J	0.011 J	0.016 J	0.0096 J	0.1
Selenium, TCLP	0.0089 J	0.0097 J	0.011 J	0.01 J	0.05
Zinc, TCLP	0.029 J	0.018 J	0.038 J	0.07 J	5
<b>SPLP Metals (mg/l)</b>					
Arsenic, SPLP	0.066	0.083	0.039	0.051	0.05
Barium, SPLP	0.48 J	0.6 J	0.28 J	0.78 J	2
Beryllium, SPLP	0.0034 J	0.0044	0.0017 J	0.0042	0.004
Cadmium, SPLP	0.0023 J	0.0025 J	0.0017 J	0.0026 J	0.005
Chromium, SPLP	0.12 J	0.15 J	0.064 J	0.13 J	0.1
Cobalt, SPLP	0.029 J	0.031 J	0.019 J	0.04 J	1
Copper, SPLP	0.13 J	0.14 J	0.083 J	0.089 J	0.65
Iron, SPLP	116 J	153 J	67.2 J	103 J	5
Lead, SPLP	0.14	0.099	0.18	0.14	0.0075
Manganese, SPLP	1.7	1.9	0.92	1.6	0.15
Mercury, SPLP	0.00022	0.00033	0.00013 J	0.00022	0.002
Nickel, SPLP	0.1	0.12	0.059	0.095	0.1
Selenium, SPLP	0.0072 J	0.0092 J	0.0049 J	0.0086 J	0.05
Zinc, SPLP	0.41	0.46	0.3	0.48	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28684

Sampling Dates: 03/03/14 - 03/04/14

Report to:

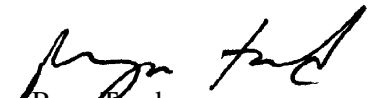
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **313**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	VL13-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-9	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63650.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	5.24 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.0	ug/kg	
71-43-2	Benzene	2.7	0.53	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.3	ug/kg	
75-15-0	Carbon disulfide	0.46	5.3	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.80	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.44	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.44	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.44	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.28	ug/kg	
100-41-4	Ethylbenzene	1.5	2.1	0.73	ug/kg	J
591-78-6	2-Hexanone	ND	11	0.80	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.3	0.57	ug/kg	
75-09-2	Methylene chloride	1.4	2.1	0.56	ug/kg	J
100-42-5	Styrene	ND	5.3	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.42	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	6.6	5.3	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL13-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.0
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.61	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.96	ug/kg	
1330-20-7	Xylene (total)	4.7	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-84-2	Propanal, 2-methyl-	4.77	59	ug/kg	JN
106-97-8	Butane	5.09	24	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	20	ug/kg	JN
109-66-0	Pentane	6.48	18	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	12	ug/kg	JN
110-54-3	Hexane	8.45	9.3	ug/kg	JN
110-82-7	Cyclohexane	9.17	6.4	ug/kg	JN
763-29-1	1-Pentene, 2-methyl-	9.92	7.9	ug/kg	JN
142-82-5	Heptane	10.51	7.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	14	ug/kg	JN
	Total TIC, Volatile		178	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.25  
4

## Report of Analysis

<b>Client Sample ID:</b>	VL13-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-9	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37345.D	1	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL13-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-9	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	17.3	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	88%		30-130%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL13-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.0
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	96%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	5900	ug/kg	JN
	Total TIC, Semi-Volatile		5900	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> VL13-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-9	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.9	0.89	0.18	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	44.6	4.4	0.065	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.15 B	0.36	0.021	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.20 B	0.36	0.038	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	121000	4400	56	mg/kg	10	03/06/14	03/11/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	10.4	0.89	0.084	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.4 B	4.4	0.042	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	15.9	2.2	0.49	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	12400	8.9	0.77	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	34.2	0.89	0.15	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	59500	440	4.6	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	379	1.3	0.036	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.010 B	0.036	0.0079	mg/kg	1	03/11/14	03/11/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	9.5	3.6	0.039	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	504	440	7.6	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.37 B	0.44	0.11	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	1750	440	2.9	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.39 B	0.89	0.12	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	17.4	0.89	0.12	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	49.8	1.8	0.14	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22608
- (5) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL13-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-9 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.0
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	9.0		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

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## Report of Analysis

<b>Client Sample ID:</b> VL13-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-9A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.0
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.47 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0016 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0022 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0089 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.029 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL13-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-9B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.0
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.066		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.48 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0034 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0023 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.029 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	116		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.14		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00022		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.10		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0072 B		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.41		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b>	VL13-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-10	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63651.D	1	03/07/14	KD	n/a	n/a	MSM2231
Run #2							

Run #	Initial Weight	Final Volume
Run #1	6.33 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	8.8	2.5	ug/kg	
71-43-2	Benzene	1.7	0.44	0.30	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.18	ug/kg	
75-25-2	Bromoform	ND	1.8	0.31	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.53	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.8	2.7	ug/kg	
75-15-0	Carbon disulfide	ND	4.4	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.14	ug/kg	
75-00-3	Chloroethane	ND	4.4	0.67	ug/kg	
67-66-3	Chloroform	ND	1.8	0.15	ug/kg	
74-87-3	Chloromethane	ND	4.4	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.28	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.28	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.36	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.37	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.37	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.37	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.20	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.23	ug/kg	
100-41-4	Ethylbenzene	0.90	1.8	0.61	ug/kg	J
591-78-6	2-Hexanone	ND	8.8	0.67	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.4	0.47	ug/kg	
75-09-2	Methylene chloride	1.1	1.8	0.47	ug/kg	J
100-42-5	Styrene	ND	4.4	0.15	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.35	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.28	ug/kg	
108-88-3	Toluene	3.3	4.4	0.18	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.19	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL13-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.51	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.80	ug/kg	
1330-20-7	Xylene (total)	2.1	1.8	0.19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.09	13	ug/kg	JN
110-54-3	Hexane	8.46	6.7	ug/kg	JN
110-82-7	Cyclohexane	9.92	4.8	ug/kg	JN
142-82-5	Heptane	10.51	4.5	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	6.4	ug/kg	JN
	Total TIC, Volatile		35.4	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL13-2(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-10	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37346.D	1	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	68	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	38	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	42.6	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	46.5	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	63.9	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	41.0	110	11	ug/kg	J
207-08-9	Benzo(k)fluoranthene	18.6	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	38.0	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL13-2(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-10	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	21.4	270	10	ug/kg	J
206-44-0	Fluoranthene	58.7	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	31.9	110	12	ug/kg	J
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	51.3	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-130%
4165-62-2	Phenol-d5	75%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> VL13-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	89%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	5800	ug/kg	JN
	Total TIC, Semi-Volatile		5800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL13-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-10	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.8	0.89	0.19	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	33.1	4.5	0.065	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.22 B	0.36	0.021	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.054 B	0.36	0.038	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	75100	4500	56	mg/kg	10	03/06/14	03/11/14 EAL	SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	8.7	0.89	0.085	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.0 B	4.5	0.042	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	9.4	2.2	0.49	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10300	8.9	0.78	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	12.7	0.89	0.15	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	34200	450	4.6	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	318	1.3	0.036	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.015 B	0.036	0.0079	mg/kg	1	03/11/14	03/11/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	9.0	3.6	0.039	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	669	450	7.6	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.32 B	0.45	0.11	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2500	450	3.0	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.27 B	0.89	0.12	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.9	0.89	0.12	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	28.2	1.8	0.14	mg/kg	1	03/06/14	03/07/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22608
- (5) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL13-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-10 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.7
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.7		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.5		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> VL13-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-10A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.44 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0011 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.011 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0097 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.018 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL13-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-10B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 89.7
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.083		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.60		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0044		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0025 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.031 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.14		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	153		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.099		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.9		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00033		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0092 B		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.46		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL13-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-11	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63652.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	5.76 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.6	2.7	ug/kg	
71-43-2	Benzene	1.9	0.48	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.58	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.6	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	4.8	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.8	0.73	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.40	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.40	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.40	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	1.2	1.9	0.66	ug/kg	J
591-78-6	2-Hexanone	ND	9.6	0.73	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.8	0.52	ug/kg	
75-09-2	Methylene chloride	1.3	1.9	0.51	ug/kg	J
100-42-5	Styrene	ND	4.8	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.38	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	4.1	4.8	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL13-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-11	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.55	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.87	ug/kg	
1330-20-7	Xylene (total)	2.8	1.9	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	19	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	15	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	8.5	ug/kg	JN
110-54-3	Hexane	8.46	7.6	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.3	ug/kg	JN
	Total TIC, Volatile		64.1	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	VL13-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-11	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37347.D	1	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	68	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	38	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	20.5	110	14	ug/kg	J
50-32-8	Benzo(a)pyrene	22.9	110	12	ug/kg	J
205-99-2	Benzo(b)fluoranthene	36.7	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	18.6	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b>	VL13-3(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-11	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	45.7	270	29	ug/kg	J
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	28.7	270	10	ug/kg	J
206-44-0	Fluoranthene	43.4	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	20.0	110	15	ug/kg	J
129-00-0	Pyrene	34.6	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	83%		30-130%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL13-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-11 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.3
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	87%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.70	5500	ug/kg JN
	Total TIC, Semi-Volatile		5500	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.31  
4

# Report of Analysis

<b>Client Sample ID:</b> VL13-3(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-11	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.4	0.89	0.18	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	26.2	4.4	0.064	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.19 B	0.35	0.021	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.12 B	0.35	0.037	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	65100	4400	56	mg/kg	10	03/06/14	03/11/14	EAL SW846 6010C <sup>3</sup>	SW846 3050B <sup>4</sup>
Chromium	10.4	0.89	0.084	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.2 B	4.4	0.042	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	10.9	2.2	0.49	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10800	8.9	0.77	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	31.0	0.89	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	33100	440	4.5	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	298	1.3	0.035	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0086 B	0.034	0.0074	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>5</sup>
Nickel	9.7	3.5	0.039	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	602	440	7.6	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.28 B	0.44	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2490	440	2.9	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.23 B	0.89	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	19.6	0.89	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	37.3	1.8	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Instrument QC Batch: MA16853
- (4) Prep QC Batch: MP22608
- (5) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL13-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-11 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.3
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.3		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	7.8		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

4.31  
4

## Report of Analysis

<b>Client Sample ID:</b> VL13-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-11A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.3
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.58	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0019 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0011 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0033 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	3.0			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.011 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.038 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.32  
4

## Report of Analysis

<b>Client Sample ID:</b> VL13-3(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-11B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 90.3
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.039		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.28 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0017 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0017 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.064		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.019 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.083		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	67.2		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.18		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.92		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00013 B		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.059		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0049 B		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.30		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.33  
4

## Report of Analysis

<b>Client Sample ID:</b>	VL13-4(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-12	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.7
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63653.D	1	03/07/14	KD	n/a	n/a	MSM2231
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.15 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	3.2	ug/kg	
71-43-2	Benzene	0.60	0.57	0.39	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.24	ug/kg	
75-25-2	Bromoform	ND	2.3	0.41	ug/kg	
74-83-9	Bromomethane	ND	2.3	0.69	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	3.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.87	ug/kg	
67-66-3	Chloroform	0.90	2.3	0.19	ug/kg	J
74-87-3	Chloromethane	ND	5.7	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.3	0.31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.3	0.37	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.3	0.47	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.3	0.48	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.3	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.48	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	2.3	0.79	ug/kg	
591-78-6	2-Hexanone	ND	11	0.87	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.7	0.62	ug/kg	
75-09-2	Methylene chloride	1.8	2.3	0.61	ug/kg	J
100-42-5	Styrene	ND	5.7	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.36	ug/kg	
108-88-3	Toluene	0.83	5.7	0.24	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.25	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL13-4(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.66	ug/kg	
79-01-6	Trichloroethene	ND	2.3	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	1.0	ug/kg	
1330-20-7	Xylene (total)	0.47	2.3	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
109-66-0	Pentane	6.48	10	ug/kg	JN
66-25-1	Hexanal	12.45	15	ug/kg	JN
1000153-57-1	Benzoic acid, 3-methyl-2-trimethyl	14.94	6	ug/kg	JN
	Total TIC, Volatile		31	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4



## Report of Analysis

<b>Client Sample ID:</b>	VL13-4(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-12	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37401.D	1	03/11/14	KR	03/05/14	OP37063	MSR1381
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	95	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	73	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	30	ug/kg	
88-75-5	2-Nitrophenol	ND	580	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL13-4(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-12	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	16	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.1	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	290	11	ug/kg	
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	15	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	76%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL13-4(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.68	6100	ug/kg JN
	Total TIC, Semi-Volatile		6100	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.34  
4

# Report of Analysis

<b>Client Sample ID:</b> VL13-4(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.86	0.13	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	2.3	0.86	0.18	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	74.6	4.3	0.062	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.47	0.34	0.020	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.42	0.34	0.036	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	4520	430	5.4	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	14.0	0.86	0.081	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	3.7 B	4.3	0.040	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.2	2.1	0.47	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	7860	8.6	0.74	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	12.4	0.86	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	2340	430	4.4	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	260	1.3	0.034	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.026 B	0.035	0.0078	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.9	3.4	0.038	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	678	430	7.3	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.39 B	0.86	0.30	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.41 B	0.43	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	3720	430	2.8	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.15 B	0.86	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	17.4	0.86	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	41.3	1.7	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Prep QC Batch: MP22608
- (4) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.34  
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## Report of Analysis

<b>Client Sample ID:</b> VL13-4(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-12	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.7		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	7.6		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.34  
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# Report of Analysis

<b>Client Sample ID:</b> VL13-4(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-12A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.52	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0013 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0072 B			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.026 B			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0021 B	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	2.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0096 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.070 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL13-4(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-12B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.051		0.010	0.0029	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.78		0.50	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0026 B		0.0040	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.040 B		0.050	0.00040	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.089		0.025	0.0070	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Iron	103		0.10	0.020	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.14		0.010	0.0017	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.6		0.015	0.00081	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00022		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.095		0.040	0.00057	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0086 B		0.025	0.0048	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.48		0.10	0.00050	mg/l	1	03/07/14	03/08/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Accutest Laboratories of New England  
 495 Technology Center West, Building One  
 TEL: 508-481-6200 FAX: 508-481-7753  
 www.accutest.com

FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
 Accutest Quote # \_\_\_\_\_ Accutest Job # **MC 28684**

Client / Reporting Information		Project Information				Requested Analysis (see TEST CODE sheet)										Matrix Codes
Company Name <b>Beston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>				VOCs SVOCs Total Metals TCU/SLP Metals PH										DW - Drinking Water GW - Ground Water W7 - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <b>750 E. Banker Ct Ste 500</b>		Street:														
City State Zip <b>Vernon Hills IL 60081</b>		Billing Information (if different from Report to)														
Project Contact <b>S. Babusan Kumar</b>		Company Name														
Phone # Fax # <b>847-918-4018 -4055</b>		Street Address														
Sampler Name(s) <b>David Torres SING 847-918-4130</b>		City State Zip														
Project Manager <b>Matt Morvell</b>		Attention:				LAB USE ONLY										

Accutest Sample #	Field ID / Point of Collection	MECH/ID/Val #	Collection		Sampled by	Matrix	# of bottles	Number of preserved bottles																					
			Date	Time				HCl	NH <sub>4</sub> OH	PHOS	HSO <sub>4</sub>	NO <sub>3</sub>	NO <sub>2</sub>	DI WASH	MECH	ENCORE	Bottle												
-1	35-1(0.5-1.5)-030314		3-3-14	10:30	DS	So	3																						
-2	35-3(0.5-1.5)-030314			11:00			3																						
-3	35-5(0.5-1.5)-030314			11:20			3																						
-4	VL15-1(0.5-1.5)-030314			11:40			3																						
-5	VL15-2(0.5-1.5)-030314			12:00			3																						
-6	VL15-2(0.5-1.5)-030314			12:25			3																						
-7	VL15-2(0.5-1.5)-030314			12:50			3																						
-8	VL15-2(0.5-1.5)-030314			13:10			3																						
-9	VL13-2(0.5-1.5)-030314			13:25			3																						
-10	VL13-3(0.5-1.5)-030314			13:50			3																						
-11	VL13-3(0.5-1.5)-030314			14:15			3																						
-12	VL13-4(0.5-1.5)-030314						3																						

Data Deliverable Information		Comments / Special Instructions	
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink	Approved By (Accutest PM): / Date: _____	<input type="checkbox"/> Commercial "A" ( Level 1) <input type="checkbox"/> Commercial "B" ( Level 2) <input type="checkbox"/> FULLT1 ( Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____
		<b>14E, 6FI</b>	

**Sample Custody must be documented below each time samples change possession, including courier delivery.**

Relinquished by Sampler: <b>1 David Torres</b>	Date Time: <b>3-4-14/15:15</b>	Received By: <b>1 Matt Morvell</b>	Date Time: <b>3-4-14/15:40</b>	Relinquished By: <b>1 Matt Morvell</b>	Date Time: <b>3/5/14</b>	Received By: <b>2 [Signature]</b>
Relinquished by Sampler: <b>3 [Signature]</b>	Date Time:	Received By: <b>3 [Signature]</b>	Date Time:	Relinquished By: <b>4 [Signature]</b>	Date Time:	Received By: <b>4 [Signature]</b>
Relinquished by:	Date Time:	Received By:	Date Time:	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input type="checkbox"/> On Ice <input checked="" type="checkbox"/> Cooler Temp. <b>1.1°C</b>
<b>5</b>		<b>5</b>				

5.1 5







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

12724 Wagner Lane

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.297111819 Longitude: -88.445323915

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.297111819 Longitude: -88.445323915

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS RL4-1 AND RL4-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-75. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28684

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



**Summary Table of ISGS Site No. 2792-75**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RL4-1(0.5-1.5)-030314	RL4-2(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	
Location ID	RL4-1	RL4-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.9	8.8	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	1.8	1.8	30
Ethylbenzene	1.3 J	1.4 J	13000
Methylene chloride	1.4 J	1.3 J	20
Toluene	4.5 J	4.6 J	12000
Xylene (Total)	3	2.7	5600
<b>SVOCs (ug/kg)</b>			
bis(2-Ethylhexyl)phthalate	16.6 J	13.2 J	46000
Di-N-Butyl phthalate	ND	31.9 J	2300000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	4.6	4.6	11.3 / 13
Barium, Total	36.4	43.2	1500
Beryllium, Total	0.24 J	0.25 J	22
Cadmium, Total	0.056 J	0.056 J	5.2
Calcium, Total	50400	28100	---
Chromium, Total	10	10.9	21
Cobalt, Total	4.5 J	5.1	20
Copper, Total	8.6	8.8	2900
Iron, Total	9830	11100	15000 / 15900
Lead, Total	4.7	10.5	107
Magnesium, Total	28600	16400	325000
Manganese, Total	330	365	630 / 636
Mercury, Total	0.013 J	0.017 J	0.89
Nickel, Total	10.4	10.4	100
Potassium, Total	640 J	549 J	---
Silver, Total	0.4 J	0.44 J	4.4
Sodium, Total	1640	1800	---
Thallium, Total	0.25 J	0.28 J	2.6
Vanadium, Total	19.2	22.5	550
Zinc, Total	26.6	32.5	5100
<b>TCLP Metals (mg/l)</b>			
Barium, TCLP	0.48 J	0.37 J	2
Cadmium, TCLP	0.0012 J	0.0013 J	0.005
Chromium, TCLP	0.0029 J	ND	0.1
Cobalt, TCLP	0.027 J	0.0028 J	1
Manganese, TCLP	3.9	2	0.15
Nickel, TCLP	0.034 J	0.017 J	0.1
Selenium, TCLP	0.008 J	0.0095 J	0.05
Zinc, TCLP	0.012 J	0.021 J	5

**Summary Table of ISGS Site No. 2792-75**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RL4-1(0.5-1.5)-030314	RL4-2(0.5-1.5)-030314	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	
Location ID	RL4-1	RL4-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.091	0.075	0.05
Barium, SPLP	0.64 J	0.5 J	2
Beryllium, SPLP	0.0045	0.004	0.004
Cadmium, SPLP	0.0027 J	0.0027 J	0.005
Chromium, SPLP	0.15 J	0.14 J	0.1
Cobalt, SPLP	0.049 J	0.033 J	1
Copper, SPLP	0.15 J	0.13 J	0.65
Iron, SPLP	161 J	136 J	5
Lead, SPLP	0.092	0.27	0.0075
Manganese, SPLP	2.7	2	0.15
Mercury, SPLP	0.00024	0.0003	0.002
Nickel, SPLP	0.15	0.12	0.1
Selenium, SPLP	0.0081 J	0.0098 J	0.05
Zinc, SPLP	0.44	0.46	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28684

Sampling Dates: 03/03/14 - 03/04/14

Report to:

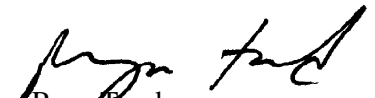
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **313**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> RL4-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-6	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63647.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	6.05 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.5	2.7	ug/kg	
71-43-2	Benzene	1.8	0.48	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.20	ug/kg	
75-25-2	Bromoform	ND	1.9	0.34	ug/kg	
74-83-9	Bromomethane	ND	1.9	0.57	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.5	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	4.8	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.8	0.72	ug/kg	
67-66-3	Chloroform	ND	1.9	0.16	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.9	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.9	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.9	0.39	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	0.43	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	0.40	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.9	0.40	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.25	ug/kg	
100-41-4	Ethylbenzene	1.3	1.9	0.66	ug/kg	J
591-78-6	2-Hexanone	ND	9.5	0.72	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.8	0.51	ug/kg	
75-09-2	Methylene chloride	1.4	1.9	0.51	ug/kg	J
100-42-5	Styrene	ND	4.8	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.37	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.30	ug/kg	
108-88-3	Toluene	4.5	4.8	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.21	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> RL4-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-6	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 86.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.55	ug/kg	
79-01-6	Trichloroethene	ND	1.9	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.87	ug/kg	
1330-20-7	Xylene (total)	3.0	1.9	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.08	16	ug/kg	JN
109-66-0	Pentane	6.49	14	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	8	ug/kg	JN
110-54-3	Hexane	8.47	8.8	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.1	ug/kg	JN
110-82-7	Cyclohexane	9.92	6.2	ug/kg	JN
142-82-5	Heptane	10.51	5.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.7	ug/kg	JN
	Total TIC, Volatile		72.2	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.16  
**4**



## Report of Analysis

<b>Client Sample ID:</b>	RL4-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-6	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37342.D	1	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RL4-1(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-6	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

4.16  
4

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	16.6	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	89%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RL4-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-6 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.8
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	96%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6100	ug/kg JN
	Total TIC, Semi-Volatile		6100	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.16  
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# Report of Analysis

<b>Client Sample ID:</b> RL4-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-6	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.94	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	4.6	0.94	0.19	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	36.4	4.7	0.068	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.24 B	0.37	0.022	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.056 B	0.37	0.040	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	50400	470	5.9	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	10	0.94	0.089	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	4.5 B	4.7	0.044	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	8.6	2.3	0.52	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	9830	9.4	0.81	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	4.7	0.94	0.16	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	28600	470	4.8	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	330	1.4	0.037	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.013 B	0.034	0.0075	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	10.4	3.7	0.041	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	640	470	8.0	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.33 U	0.94	0.33	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.40 B	0.47	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1640	470	3.1	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.25 B	0.94	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	19.2	0.94	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	26.6	1.9	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Prep QC Batch: MP22608
- (4) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL4-1(0.5-1.5)-030314		<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-6		<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 86.8
<b>Project:</b> IDOT 048 - McHenry County, IL		

4.16  
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	86.8		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.9		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> RL4-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-6A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.48 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0012 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0029 B	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.027 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	3.9			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.034 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0080 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.012 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.17  
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## Report of Analysis

<b>Client Sample ID:</b> RL4-1(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-6B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 86.8
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.091		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.64		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0045		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0027 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.15		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.049 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.15		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	161		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.092		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.7		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00024		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.15		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0081 B		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.44		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.18  
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# Report of Analysis

<b>Client Sample ID:</b> RL4-2(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-8	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63649.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	5.57 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/kg	
71-43-2	Benzene	1.8	0.51	0.34	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.21	ug/kg	
75-25-2	Bromoform	ND	2.0	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.1	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.77	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.42	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.42	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.42	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.27	ug/kg	
100-41-4	Ethylbenzene	1.4	2.0	0.70	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.55	ug/kg	
75-09-2	Methylene chloride	1.3	2.0	0.54	ug/kg	J
100-42-5	Styrene	ND	5.1	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.32	ug/kg	
108-88-3	Toluene	4.6	5.1	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.22	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.22  
 4



## Report of Analysis

<b>Client Sample ID:</b> RL4-2(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-8	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	2.7	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
78-78-4	Butane, 2-methyl-	6.09	15	ug/kg	JN
109-66-0	Pentane	6.49	13	ug/kg	JN
110-54-3	Hexane	8.46	11	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.9	ug/kg	JN
142-82-5	Heptane	10.51	5.9	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.2	ug/kg	JN
	Total TIC, Volatile		60	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.22  
4

## Report of Analysis

<b>Client Sample ID:</b>	RL4-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-8	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37344.D	1	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.7 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	68	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	RL4-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-8	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.4
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	31.9	270	29	ug/kg	J
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	13.2	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	81%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RL4-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.4
---	--

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6000	ug/kg	JN
	Total TIC, Semi-Volatile		6000	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RL4-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.93	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	4.6	0.93	0.19	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	43.2	4.6	0.067	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.25 B	0.37	0.022	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.056 B	0.37	0.039	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	28100	460	5.8	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	10.9	0.93	0.088	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.1	4.6	0.044	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	8.8	2.3	0.51	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	11100	9.3	0.81	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	10.5	0.93	0.16	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	16400	460	4.7	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	365	1.4	0.037	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.017 B	0.036	0.0080	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	10.4	3.7	0.041	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	549	460	7.9	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.93	0.32	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.44 B	0.46	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1800	460	3.1	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.28 B	0.93	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	22.5	0.93	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	32.5	1.9	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Prep QC Batch: MP22608
- (4) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL4-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-8	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.4
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.4		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.8		su	1	03/06/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> RL4-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-8A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.4
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.37 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0013 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0028 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	2.0			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0095 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.021 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL4-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-8B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.4
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.075		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.50		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0040		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0027 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.033 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	136		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.27		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.0		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00030		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0098 B		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.46		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #	Batch Order Control #
Accutest Quote #	Accutest Job # <b>MC28684</b>
Requested Analysis (see TEST CODE sheet)	
Matrix Codes	
DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
LAB USE ONLY	

Client / Reporting Information		Project Information	
Company Name <b>Western Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>	
Street Address <b>750 E. Banker Ct Ste 500</b>		Street	
City <b>Keokuk Hills IL</b>		Billing Information (if different from Report to)	
State <b>IL</b>		Company Name	
Zip <b>60081</b>		Street Address	
Project Contact <b>S. Babusankaran</b>		City	
E-mail		State	
Phone # <b>847-918-4018</b>		Zip	
Fax # <b>-4055</b>		Client PO#	
Sampler(s) Name(s) <b>F. ...</b>		Project Manager <b>Watt Maxwell</b>	
Phone # <b>847-918-4130</b>		Attention: PO#	

Accutest Sample #	Field ID / Point of Collection	MECH/DI Vial #	Collection		Sampled by	Matrix	# of bottles	Number of preserved bottles													
			Date	Time				MC1	MC2	MC3	MC4	MC5	MC6	MC7	MC8	MC9	MC10				
-13	RL2-1(0.5-1.5)-030314		3-3-14	14:30	DS	SO	3														
-14	RL2-2(0.5-1.5)-030314		3-3-14	14:50	DS	SO	3														
-15	RL2-3(0.5-1.5)-030414		3-4-14	8:00	DS	SO	3														
-16	RL2-4(0.5-1.5)-030414		3-4-14	8:25	DS	SO	3														
-17	RL2-4(0.5-1.5)-030414		3-4-14	8:25	DS	SO	3														
-18	RE13-1(0.5-1.5)-030414		3-4-14	8:45	DS	SO	3														
-19	RE13-2(0.5-1.5)-030414		3-4-14	9:05	DS	SO	3														
-20	RE13-3(0.5-1.5)-030414		3-4-14	9:25	DS	SO	3														

**VOCs**  
**SVOCs**  
**Total Metals**  
**TCUP/SLP Metals**  
**pH**

Turnaround Time (Business days)		Approved By (Accutest PM) / Date:		Data Deliverable Information		Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other	
Emergency & Rush T/A data available VIA Lablink				Commercial "A" = Results Only Commercial "B" = Results + QC Summary			

Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	CHICAGO SC	
<b>Award Awa</b>	<b>3-4-14/15:15</b>	<i>[Signature]</i>	<b>Recpt</b>	<b>3/5/14 9:30</b>	<b>Watt Maxwell</b>		
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:		
3		3	4		4		
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable	<input type="checkbox"/> On Ice	Cooler Temp.
5		5		<input type="checkbox"/> Not Intact		<input type="checkbox"/>	

MC28684: Chain of Custody

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
12618 to 12642 Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.296911906 Longitude: -88.444610381  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.296911906 Longitude: -88.444610381Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION RL5-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-76. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28738

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

**Summary Table of ISGS Site No. 2792-76**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RL5-1(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	RL5-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.7	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.2	30
Carbon disulfide	1.7 J	9000
Ethylbenzene	0.94 J	13000
Methylene chloride	1.1 J	20
Toluene	2.7 J	12000
Xylene (Total)	2.4	5600
<b>SVOCs (ug/kg)</b>		
<b>Total Metals (mg/kg)</b>		
Antimony, Total	0.17 J	5
Arsenic, Total	2.2	11.3 / 13
Barium, Total	18.2	1500
Beryllium, Total	0.17 J	22
Calcium, Total	6110 J	---
Chromium, Total	5.8	21
Cobalt, Total	2.7 J	20
Copper, Total	3.1	2900
Iron, Total	5770 J	15000 / 15900
Lead, Total	3.2	107
Magnesium, Total	3990 J	325000
Manganese, Total	138 J	630 / 636
Mercury, Total	0.0074 J	0.89
Nickel, Total	4.7	100
Potassium, Total	294 J	---
Silver, Total	0.11 J	4.4
Sodium, Total	821 J	---
Thallium, Total	0.15 J	2.6
Vanadium, Total	10.8	550
Zinc, Total	11.9 J	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0035 J	0.05
Barium, TCLP	0.24 J	2
Chromium, TCLP	0.0022 J	0.1
Cobalt, TCLP	0.02 J	1
Copper, TCLP	0.016 J	0.65
Iron, TCLP	0.2	5
Lead, TCLP	0.0023 J	0.0075
Manganese, TCLP	0.99	0.15
Nickel, TCLP	0.011 J	0.1
Zinc, TCLP	0.0092 J	5

**Summary Table of ISGS Site No. 2792-76**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	RL5-1(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	
Location ID	RL5-1	
Depth	0.5 - 1.5	
Parameter		
SPLP Metals (mg/l)		
Arsenic, SPLP	0.034	0.05
Barium, SPLP	0.55	2
Beryllium, SPLP	0.0038 J	0.004
Cadmium, SPLP	0.0009 J	0.005
Chromium, SPLP	0.12	0.1
Cobalt, SPLP	0.032 J	1
Copper, SPLP	0.063	0.65
Iron, SPLP	107	5
Lead, SPLP	0.058	0.0075
Manganese, SPLP	1.9	0.15
Mercury, SPLP	0.00028 J	0.002
Nickel, SPLP	0.084	0.1
Zinc, SPLP	0.25 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28738

Sampling Date: 03/06/14

Report to:

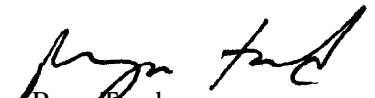
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **298**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b> RL5-1(0.5-1.5)-030614		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-12		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 93.6
<b>Method:</b> SW846 8260C		
<b>Project:</b> IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63873.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.20 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	1.2	0.51	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.21	ug/kg	
75-25-2	Bromoform	ND	2.1	0.36	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.62	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	1.7	5.1	0.13	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.78	ug/kg	
67-66-3	Chloroform	ND	2.1	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	0.94	2.1	0.71	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.78	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.1	0.55	ug/kg	
75-09-2	Methylene chloride	1.1	2.1	0.55	ug/kg	J
100-42-5	Styrene	ND	5.1	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.40	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.32	ug/kg	
108-88-3	Toluene	2.7	5.1	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.22	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4



## Report of Analysis

<b>Client Sample ID:</b> RL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.59	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.94	ug/kg	
1330-20-7	Xylene (total)	2.4	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	31	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	13	ug/kg	JN
109-66-0	Pentane	6.48	12	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	8.7	ug/kg	JN
110-54-3	Hexane	8.46	7.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	7.3	ug/kg	JN
	Total TIC, Volatile		79.4	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.34  
4

## Report of Analysis

<b>Client Sample ID:</b>	RL5-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-12	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71768.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	530	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	530	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	530	87	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	530	67	ug/kg	
95-48-7	2-Methylphenol	ND	530	21	ug/kg	
106-44-5	4-Methylphenol	ND	530	27	ug/kg	
88-75-5	2-Nitrophenol	ND	530	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	530	37	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	530	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	530	13	ug/kg	
83-32-9	Acenaphthene	ND	110	14	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	14	ug/kg	
106-47-8	4-Chloroaniline	ND	530	13	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	RL5-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-12	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	530	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	530	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	270	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	270	9.8	ug/kg	
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	530	130	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	530	13	ug/kg	
99-09-2	3-Nitroaniline	ND	530	29	ug/kg	
100-01-6	4-Nitroaniline	ND	530	13	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	14	ug/kg	
129-00-0	Pyrene	ND	110	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	73%		30-130%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	79%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	4900	ug/kg	JN
	Total TIC, Semi-Volatile		4900	ug/kg	J

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> RL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.17 B	0.85	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	2.2	0.85	0.18	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	18.2	4.3	0.062	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.17 B	0.34	0.020	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.036 U	0.34	0.036	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	6110	430	5.4	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	5.8	0.85	0.081	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	2.7 B	4.3	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	3.1	2.1	0.47	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	5770	8.5	0.74	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	3.2	0.85	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	3990	430	4.4	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	138	1.3	0.034	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0074 B	0.032	0.0071	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	4.7	3.4	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	294 B	430	7.3	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.30 U	0.85	0.30	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 B	0.43	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	821	430	2.8	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.15 B	0.85	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	10.8	0.85	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	11.9	1.7	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16889
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-12	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	93.6		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.7		su	1	03/12/14	MA	SW846 9045D

RL = Reporting Limit

4.34  
**4**

# Report of Analysis

<b>Client Sample ID:</b> RL5-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-12A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 93.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0035 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.24 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00050 U	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0022 B	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.020 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.016 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.20			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0023 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	0.99			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.011 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0092 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> RL5-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-12B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 93.6
--	--

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.034		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.55		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0038 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00090 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.032 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.063		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	107		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.058		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.9		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00028		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.084		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.25		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.36  
4





FED-EX Tracking #	Bottle Order Count #
Accutest Quote #	Accutest Job # <b>MC28738</b>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes			
Company Name <b>Watson Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>										Requested Analysis (see TEST CODE sheet) <b>NCC</b> <b>SNOCS</b> <b>Total Metals</b> <b>TCP/SPLP metals</b> <b>pH</b>										Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB- Rinse Blank TB-Trip Blank			
Street Address <b>730 E Banker Ct Ste 500</b>		Billing Information (if different from Report to)																							
City State Zip <b>Vaner Hills IL 60861</b>		Company Name																							
Project Contact <b>S. Babusukumar</b>		Street Address																							
Phone # Fax # <b>647-416-4016</b>		City State Zip																							
Sampler(s) Name(s) Phone # <b>T. Wells 617-916-4130</b>		Attention: POC#																							
Project Manager		PO#																							
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vol #	Collection			Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY							
			Date	Time	Sampled by			HCl	NH <sub>4</sub> OH	INUS	INUS3	H2SO4	NO <sub>2</sub>	DO Water	MALCO	ENCORE	Brinlab								
1	RL1-1(0.5-1.5)-030614		3-6-14	1045	TW	SO	3														X	X	X	X	X
2	RP2-1(0.5-1.5)-030614			1055																					
3	RP2-2(0.5-1.5)-030614			1105																					
4	RC-1(0.5-1.5)-030614			1115																					
5	RC-1(0.5-1.5)-030614			1115																					
6	RC-2(0.5-1.5)-030614			1200																					
7	RL3-1(0.5-1.5)-030614			1210																					
8	VL12-1(0.5-1.5)-030614			1225																					
9	VL12-2(0.5-1.5)-030614			1230																					
10	VL12-3(0.5-1.5)-030614			1240																					
11	VL12-4(0.5-1.5)-030614			1250																					
12	RL5-1(0.5-1.5)-030614		3-6-14	1300	TW	SO	3															X	X	X	X
Turnaround Time (Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM): / Date:		Data Deliverable Information <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP  Commercial "A" = Results Only Commercial "B" = Results + QC Summary					NYASP Category A NYASP Category B State Forms EDD Format Other					Comments / Special Instructions <b>Loc. 15A, 6P2</b>											
Emergency & Rush T/A data available VIA Lablink												Sample Custody must be documented below each time samples change possession, including courier delivery.												CHICAGO SC	
Relinquished by Sampler: <b>1 T. Wells</b>		Date Time: <b>3-6-14/1500</b>		Received By: <b>[Signature]</b>		Date Time: <b>3/6/14 3:04</b>		Relinquished By: <b>F20</b>		Date Time: <b>3-7-14</b>		Received By: <b>[Signature]</b>													
Relinquished by Sampler: <b>3</b>		Date Time:		Received By: <b>3</b>		Date Time:		Relinquished By:		Date Time:		Received By:													
Relinquished by:		Date Time:		Received By:		Date Time:		Custody Seal #		Intact Not intact		Preserved where applicable		On Ice Cooler Temp. <b>21.3, 1.1, 0.8</b>											

51  
5



FED-EX Tracking #		Bottle Order Control #									
Accutest Quote #		Accutest Job # <b>MC28738</b>									
<b>Client / Reporting Information</b>		<b>Project Information</b>									
Company Name <b>Weston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>									
Street Address <b>750 E. Banker Ct Ste 500</b>		Street:									
City <b>Vernon Hills IL</b>		Billing Information (If different from Report to)									
State <b>IL</b>		Company Name									
Zip <b>60061</b>		Street Address									
Project Contact <b>S. Babusankar</b>		Project#									
E-mail		Street Address									
Phone # <b>817-918-4018</b>		City									
Fax # <b>-4055</b>		State									
Client PO#		Zip									
Sampler(s) Name(s) <b>T. Walk</b>		Project Manager									
Phone # <b>817-918-4180</b>		Attention:									
PO#		PO#									
<b>Requested Analysis (see TEST CODE sheet)</b>		<b>Matrix Codes</b>									
VSCs SDOCs Total Metals TSP/SP10 methods PH		DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank									
<b>LAB USE ONLY</b>											
Actual Sample #	Field ID / Point of Collection	MEQ/MDI Vial #	Collection	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles		
									<input type="checkbox"/> HCl <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NONE <input type="checkbox"/> DI Water <input type="checkbox"/> MCH <input type="checkbox"/> ENCORE <input type="checkbox"/> Biothane		
13	VL14-1(0.5-1.5)-030614			3-6-14	1310	TW	SO	3			X
14	VL14-2(0.5-1.5)-030614				1320						X
15	VL14-3(0.5-1.5)-030614				1325						X
16	VL14-3(0.5-1.5)-030614				1325						X
17	DT-1(0.5-1.5)-030614				1340						X
18	REA-1(0.5-1.5)-030614				1345						X
19	REA-2(0.5-1.5)-030614			3-6-14	1400	TW	SO	3			X
<b>Data Deliverable Information</b>		<b>Comments / Special Instructions</b>									
Turnaround Time (Business days) <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary									
Relinquished by Sampler: <b>1 T. Walk</b> Date Time: <b>3-6-14/1500</b>		Received By: <b>3 [Signature]</b> Date Time: <b>3-7-14 3:04</b>									
Relinquished by Sampler: <b>3</b> Date Time: <b>3</b>		Received By: <b>4</b> Date Time: <b>4</b>									
Relinquished by: <b>5</b> Date Time: <b>5</b>		Received By: <b>5</b> Date Time: <b>5</b>									
Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact									
Preserved where applicable		<input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp.									

5.1  
5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
12000 block of Davis Road (between Dean Street and S. Eastwood Drive)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.296399175 Longitude: -88.441760429  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.296399175 Longitude: -88.441760429

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS VL14-1, VL14-2, AND VL14-3 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-77. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28738

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

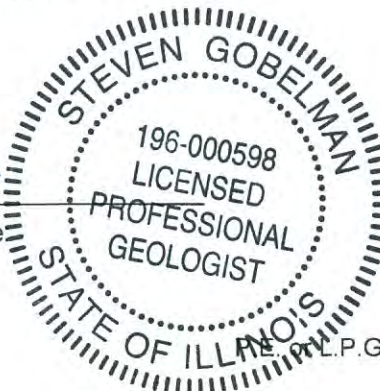
Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date



L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-77**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL14-1(0.5-1.5)-030614	VL14-2(0.5-1.5)-030614	VL14-3(0.5-1.5)-030614	VL14-3(0.5-1.5)-030614D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	VL14-1	VL14-2	VL14-3	VL14-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
Laboratory pH	8.5	8.6	8.4	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>					
Benzene	1.6	1.4	2.1	0.48 J	30
Carbon disulfide	3.9 J	1.7 J	ND	ND	9000
Ethylbenzene	1.1 J	0.98 J	ND	ND	13000
Methylene chloride	0.99 J	0.55 J	1.3 J	2.1	20
Toluene	3.3 J	3 J	3.1 J	0.96 J	12000
Xylene (Total)	2.4	2.2	1.8 J	2.2	5600
<b>SVOCs (ug/kg)</b>					
Benzo(a)anthracene	ND	ND	ND	71.5 J	900 / 1100 / 1800
Benzo(a)pyrene	ND	ND	ND	86.6 J	90 / 1300 / 2100
Benzo(b)fluoranthene	ND	ND	ND	104 J	900 / 1500 / 2100
bis(2-Ethylhexyl)phthalate	14.1 J	ND	ND	ND	46000
Chrysene	ND	ND	ND	95.7 J	88000
Fluoranthene	ND	ND	111 J	140 J	3100000
Pyrene	ND	ND	92 J	114 J	2300000
<b>Total Metals (mg/kg)</b>					
Antimony, Total	ND	ND	ND	0.15 J	5
Arsenic, Total	3.6	2.6	5.9	5	11.3 / 13
Barium, Total	33.7	17	41.9	50.2	1500
Beryllium, Total	0.21 J	0.17 J	0.31 J	0.31 J	22
Cadmium, Total	0.053 J	0.045 J	0.071 J	0.11 J	5.2
Calcium, Total	36100 J	14600 J	40000 J	47600	---
Chromium, Total	6.9	6.6	10.9	12.7	21
Cobalt, Total	4.6	2.8 J	5.3	5	20
Copper, Total	7.4	5.1	13.7	14	2900
Iron, Total	8590	6480	13600	13100	15000 / 15900
Lead, Total	5	5	11.7	17.5	107
Magnesium, Total	19000 J	8490 J	22600 J	26800	325000
Manganese, Total	342 J	188 J	351 J	252	630 / 636
Mercury, Total	0.015 J	0.0082 J	0.0081 J	0.0083 J	0.89
Nickel, Total	8.8	6.6	12.7	11.5	100
Potassium, Total	460	340 J	589	680	---
Selenium, Total	ND	ND	ND	0.48 J	1.3
Silver, Total	0.12 J	ND	0.16 J	0.22 J	4.4
Sodium, Total	1440 J	1690 J	3490 J	3480	---
Thallium, Total	0.14 J	ND	0.14 J	0.26 J	2.6
Vanadium, Total	15.7	13.5	21.2	24.7	550
Zinc, Total	20.9 J	15 J	37.5 J	38.5	5100
<b>TCLP Metals (mg/l)</b>					
Arsenic, TCLP	ND	ND	0.0033 J	0.0033 J	0.05
Barium, TCLP	0.34 J	0.21 J	0.55	0.43 J	2
Cadmium, TCLP	0.001 J	ND	0.0016 J	0.0026 J	0.005
Chromium, TCLP	ND	0.0015 J	ND	ND	0.1
Cobalt, TCLP	0.0038 J	0.0042 J	0.016 J	0.014 J	1
Copper, TCLP	0.01 J	0.011 J	0.013 J	0.025	0.65
Iron, TCLP	ND	0.031 J	0.048 J	0.037 J	5
Lead, TCLP	ND	0.002 J	0.0029 J	0.0035 J	0.0075
Manganese, TCLP	1.5	1.7	3.1	3.1	0.15
Nickel, TCLP	0.013 J	0.017 J	0.014 J	0.015 J	0.1
Selenium, TCLP	0.0052 J	ND	ND	ND	0.05
Zinc, TCLP	0.011 J	0.014 J	0.035 J	0.039 J	5

**Summary Table of ISGS Site No. 2792-77**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL14-1(0.5-1.5)-030614	VL14-2(0.5-1.5)-030614	VL14-3(0.5-1.5)-030614	VL14-3(0.5-1.5)-030614D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	3/6/2014	3/6/2014	
Location ID	VL14-1	VL14-2	VL14-3	VL14-3	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter					
SPLP Metals (mg/l)					
Arsenic, SPLP	0.053	0.046	0.03	0.044	0.05
Barium, SPLP	0.61	0.48 J	0.43 J	0.58	2
Beryllium, SPLP	0.0046 J	0.0039 J	0.0024 J	0.0035 J	0.004
Cadmium, SPLP	0.0014 J	0.0015 J	0.0011 J	0.0016 J	0.005
Chromium, SPLP	0.14	0.12	0.077	0.11	0.1
Cobalt, SPLP	0.036 J	0.03 J	0.026 J	0.036 J	1
Copper, SPLP	0.14	0.11	0.097	0.13	0.65
Iron, SPLP	146	128	83.8	119	5
Lead, SPLP	0.086	0.069	0.091	0.13	0.0075
Manganese, SPLP	1.8	1.7	1.1	1.5	0.15
Mercury, SPLP	0.00037 J	0.00032 J	0.00017 J	0.00025 J	0.002
Nickel, SPLP	0.12	0.12	0.072	0.1	0.1
Selenium, SPLP	0.0048 J	0.0053 J	ND	0.0053 J	0.05
Silver, SPLP	ND	0.001 J	ND	ND	0.05
Zinc, SPLP	0.42 J	0.33 J	0.3 J	0.39 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28738

Sampling Date: 03/06/14

Report to:

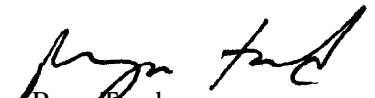
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **298**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> VL14-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63874.D	1	03/18/14	KD	n/a	n/a	MSM2239

Run #1	Initial Weight	Final Volume
Run #2	5.31 g	5.0 ml

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	1.6	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.63	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	3.9	5.2	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.79	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.59	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.44	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	1.1	2.1	0.72	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	0.99	2.1	0.55	ug/kg	J
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	3.3	5.2	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> VL14-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.60	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.95	ug/kg	
1330-20-7	Xylene (total)	2.4	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	37	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	17	ug/kg	JN
109-66-0	Pentane	6.48	14	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	11	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.4	ug/kg	JN
110-54-3	Hexane	8.46	10	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.6	ug/kg	JN
110-82-7	Cyclohexane	9.92	6.4	ug/kg	JN
142-82-5	Heptane	10.51	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.6	ug/kg	JN
111-65-9	Octane	12.36	5.5	ug/kg	JN
	Total TIC, Volatile		128.1	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.37  
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# Report of Analysis

<b>Client Sample ID:</b> VL14-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-13	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71769.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

### ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	540	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	540	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	540	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	540	68	ug/kg	
95-48-7	2-Methylphenol	ND	540	22	ug/kg	
106-44-5	4-Methylphenol	ND	540	28	ug/kg	
88-75-5	2-Nitrophenol	ND	540	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	540	38	ug/kg	
108-95-2	Phenol	ND	270	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	540	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	540	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	540	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.37  
**4**

## Report of Analysis

<b>Client Sample ID:</b>	VL14-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-13	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	540	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	540	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	14.1	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	540	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	540	14	ug/kg	
99-09-2	3-Nitroaniline	ND	540	30	ug/kg	
100-01-6	4-Nitroaniline	ND	540	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	85%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL14-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-13 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.6
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	90%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5700	ug/kg	JN
	Total TIC, Semi-Volatile		5700	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL14-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-13	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	3.6	0.89	0.19	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	33.7	4.5	0.065	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.21 B	0.36	0.021	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.053 B	0.36	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	36100	450	5.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	6.9	0.89	0.085	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	4.6	4.5	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	7.4	2.2	0.49	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	8590	8.9	0.77	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	5.0	0.89	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	19000	450	4.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	342	1.3	0.036	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.015 B	0.034	0.0075	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	8.8	3.6	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	460	450	7.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 B	0.45	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1440	450	2.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.14 B	0.89	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	15.7	0.89	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	20.9	1.8	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16889
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL14-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-13 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 90.6
--	--

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.6		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.5		su	1	03/12/14	MA	SW846 9045D

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RL = Reporting Limit

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## Report of Analysis

<b>Client Sample ID:</b> VL14-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-13A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.34 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0038 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.010 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.5			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.013 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0052 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.011 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL14-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-13B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.6
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.053		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.61		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0046		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.14		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.036 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.14		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	146		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.086		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.8		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00037		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.42		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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# Report of Analysis

<b>Client Sample ID:</b> VL14-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-14	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.7	0.48	ug/kg	
79-01-6	Trichloroethene	ND	1.7	0.21	ug/kg	
75-01-4	Vinyl chloride	ND	1.7	0.77	ug/kg	
1330-20-7	Xylene (total)	2.2	1.7	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	28	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	13	ug/kg	JN
109-66-0	Pentane	6.49	13	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	8.8	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.15	4.5	ug/kg	JN
110-54-3	Hexane	8.46	8.1	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	4.6	ug/kg	JN
110-82-7	Cyclohexane	9.92	4.9	ug/kg	JN
142-82-5	Heptane	10.51	5	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	7.6	ug/kg	JN
	Total TIC, Volatile		97.5	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	VL14-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-14	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.2
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	77	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	72	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	64	ug/kg	
132-64-9	Dibenzofuran	ND	540	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	68	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	78	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	ND	540	74	ug/kg	
86-73-7	Fluorene	ND	540	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	60	ug/kg	
78-59-1	Isophorone	ND	1400	62	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	540	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	540	73	ug/kg	
129-00-0	Pyrene	ND	540	63	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	86%		30-130%
4165-62-2	Phenol-d5	85%		30-130%
118-79-6	2,4,6-Tribromophenol	88%		30-130%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	98%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL14-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-14	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.2
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	101%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.59	6900	ug/kg JN
	Total TIC, Semi-Volatile		6900	ug/kg J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL14-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-14	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	2.6	0.90	0.19	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	17.0	4.5	0.066	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.17 B	0.36	0.022	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.045 B	0.36	0.038	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	14600	450	5.7	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	6.6	0.90	0.086	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	2.8 B	4.5	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	5.1	2.3	0.50	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	6480	9.0	0.79	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	5.0	0.90	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	8490	450	4.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	188	1.4	0.036	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0082 B	0.036	0.0078	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	6.6	3.6	0.040	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	340 B	450	7.7	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1690	450	3.0	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.12 U	0.90	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	13.5	0.90	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	15.0	1.8	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16889
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL14-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-14	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.2		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.6		su	1	03/12/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> VL14-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-14A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.21 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00050 U	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0015 B	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0042 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.011 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.031 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0020 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.7			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.014 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL14-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-14B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.2
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.046		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.48 B		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0039 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0015 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.030 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.11		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	128		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.069		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00032		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0053 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 B		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.33		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.42  
4

# Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-15	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63876.D	1	03/18/14	KD	n/a	n/a	MSM2239

Run #1	Initial Weight	Final Volume
Run #2	4.51 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.5	ug/kg	
71-43-2	Benzene	2.1	0.62	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	0.26	ug/kg	
75-25-2	Bromoform	ND	2.5	0.44	ug/kg	
74-83-9	Bromomethane	ND	2.5	0.74	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.8	ug/kg	
75-15-0	Carbon disulfide	ND	6.2	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.5	0.27	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.2	0.94	ug/kg	
67-66-3	Chloroform	ND	2.5	0.21	ug/kg	
74-87-3	Chloromethane	ND	6.2	0.70	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	0.40	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	0.40	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	0.51	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.56	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.52	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.5	0.52	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	0.52	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.33	ug/kg	
100-41-4	Ethylbenzene	ND	2.5	0.85	ug/kg	
591-78-6	2-Hexanone	ND	12	0.94	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.2	0.67	ug/kg	
75-09-2	Methylene chloride	1.3	2.5	0.66	ug/kg	J
100-42-5	Styrene	ND	6.2	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.49	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.39	ug/kg	
108-88-3	Toluene	3.1	6.2	0.25	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.27	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.43  
 4

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.71	ug/kg	
79-01-6	Trichloroethene	ND	2.5	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	1.1	ug/kg	
1330-20-7	Xylene (total)	1.8	2.5	0.27	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	48	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	21	ug/kg	JN
109-66-0	Pentane	6.48	19	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	11	ug/kg	JN
110-54-3	Hexane	8.46	10	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	6.3	ug/kg	JN
	Total TIC, Volatile		115.3	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.43  
4

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-15	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71771.D	5	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	62	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2800	70	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2800	79	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2800	450	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5500	690	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2800	340	ug/kg	
95-48-7	2-Methylphenol	ND	2800	110	ug/kg	
106-44-5	4-Methylphenol	ND	2800	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2800	74	ug/kg	
100-02-7	4-Nitrophenol	ND	5500	520	ug/kg	
87-86-5	Pentachlorophenol	ND	2800	190	ug/kg	
108-95-2	Phenol	ND	1400	78	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2800	69	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2800	68	ug/kg	
83-32-9	Acenaphthene	ND	550	74	ug/kg	
208-96-8	Acenaphthylene	ND	550	55	ug/kg	
120-12-7	Anthracene	ND	550	66	ug/kg	
56-55-3	Benzo(a)anthracene	ND	550	71	ug/kg	
50-32-8	Benzo(a)pyrene	ND	550	59	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	550	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	550	55	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	550	83	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	70	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	56	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	75	ug/kg	
106-47-8	4-Chloroaniline	ND	2800	69	ug/kg	
86-74-8	Carbazole	ND	550	65	ug/kg	
218-01-9	Chrysene	ND	550	69	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	65	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	84	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	99	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	84	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL14-3(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-15	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	71	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	79	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	73	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2800	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2800	69	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	550	66	ug/kg	
132-64-9	Dibenzofuran	ND	550	76	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	150	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	43	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	69	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	51	ug/kg	
206-44-0	Fluoranthene	111	550	75	ug/kg	J
86-73-7	Fluorene	ND	550	73	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	86	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2800	690	ug/kg	
67-72-1	Hexachloroethane	ND	1400	66	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	550	61	ug/kg	
78-59-1	Isophorone	ND	1400	63	ug/kg	
91-57-6	2-Methylnaphthalene	ND	550	70	ug/kg	
88-74-4	2-Nitroaniline	ND	2800	69	ug/kg	
99-09-2	3-Nitroaniline	ND	2800	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2800	69	ug/kg	
91-20-3	Naphthalene	ND	550	88	ug/kg	
98-95-3	Nitrobenzene	ND	1400	74	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	79	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	83	ug/kg	
85-01-8	Phenanthrene	ND	550	75	ug/kg	
129-00-0	Pyrene	92.0	550	65	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	76	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		30-130%
4165-62-2	Phenol-d5	73%		30-130%
118-79-6	2,4,6-Tribromophenol	75%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.43  
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	82%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	6100	ug/kg	JN
	Total TIC, Semi-Volatile		6100	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-15	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.88	0.13	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.9	0.88	0.18	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	41.9	4.4	0.064	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.31 B	0.35	0.021	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.071 B	0.35	0.037	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	40000	440	5.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	10.9	0.88	0.084	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.3	4.4	0.042	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	13.7	2.2	0.49	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13600	8.8	0.77	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	11.7	0.88	0.15	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	22600	440	4.5	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	351	1.3	0.035	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0081 B	0.034	0.0075	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.7	3.5	0.039	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	589	440	7.6	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.88	0.31	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.16 B	0.44	0.11	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	3490	440	2.9	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.14 B	0.88	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	21.2	0.88	0.12	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	37.5	1.8	0.14	mg/kg	1	03/14/14	03/14/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16889
- (3) Prep QC Batch: MP22657
- (4) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-15 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.7		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/12/14	MA	SW846 9045D

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RL = Reporting Limit

4.43  
4



## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-15A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0033 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.55	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0016 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.016 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.013 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.048 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0029 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.1			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.014 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.035 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-15B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.030		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.43 B		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0024 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0011 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.077		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.026 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.097		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	83.8		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.091		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.1		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00017 B		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.072		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.30		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b>	VL14-3(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-16	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.9
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63877.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.38 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	0.48	0.52	0.35	ug/kg	J
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.63	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.79	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.59	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.34	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.44	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.44	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.44	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	ND	2.1	0.72	ug/kg	
591-78-6	2-Hexanone	ND	10	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	2.1	2.1	0.56	ug/kg	
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	0.96	5.2	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-16	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.60	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.95	ug/kg	
1330-20-7	Xylene (total)	2.2	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	83%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	VL14-3(0.5-1.5)-030614D	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-16	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.9
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71772.D	5	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.8 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1400	61	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	69	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	78	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	440	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5400	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	340	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	72	ug/kg	
100-02-7	4-Nitrophenol	ND	5400	510	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1400	77	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	68	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	67	ug/kg	
83-32-9	Acenaphthene	ND	540	72	ug/kg	
208-96-8	Acenaphthylene	ND	540	54	ug/kg	
120-12-7	Anthracene	ND	540	65	ug/kg	
56-55-3	Benzo(a)anthracene	71.5	540	70	ug/kg	J
50-32-8	Benzo(a)pyrene	86.6	540	58	ug/kg	J
205-99-2	Benzo(b)fluoranthene	104	540	68	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	540	54	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	540	82	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	68	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	55	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	73	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	68	ug/kg	
86-74-8	Carbazole	ND	540	64	ug/kg	
218-01-9	Chrysene	95.7	540	67	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	64	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	82	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	97	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	83	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614D		<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-16		<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 88.9
<b>Method:</b> SW846 8270D SW846 3546		
<b>Project:</b> IDOT 048 - McHenry County, IL		

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**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1400	70	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1400	72	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	68	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1400	140	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	540	65	ug/kg	
132-64-9	Dibenzofuran	ND	540	75	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	68	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	78	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	50	ug/kg	
206-44-0	Fluoranthene	140	540	74	ug/kg	J
86-73-7	Fluorene	ND	540	72	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	85	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	680	ug/kg	
67-72-1	Hexachloroethane	ND	1400	65	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	540	60	ug/kg	
78-59-1	Isophorone	ND	1400	62	ug/kg	
91-57-6	2-Methylnaphthalene	ND	540	69	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	68	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	68	ug/kg	
91-20-3	Naphthalene	ND	540	87	ug/kg	
98-95-3	Nitrobenzene	ND	1400	73	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	82	ug/kg	
85-01-8	Phenanthrene	ND	540	73	ug/kg	
129-00-0	Pyrene	114	540	64	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	1400	75	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		30-130%
4165-62-2	Phenol-d5	44%		30-130%
118-79-6	2,4,6-Tribromophenol	61%		30-130%
4165-60-0	Nitrobenzene-d5	49%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28738-16 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.9
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	68%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	4800	ug/kg	JN
	Total TIC, Semi-Volatile		4800	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-16	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.15 B	0.92	0.14	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.0	0.92	0.19	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	50.2	4.6	0.067	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.31 B	0.37	0.022	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.11 B	0.37	0.039	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	47600	460	5.8	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	12.7	0.92	0.088	mg/kg	1	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Cobalt	5.0	4.6	0.043	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.0	2.3	0.51	mg/kg	1	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Iron	13100	9.2	0.80	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	17.5	0.92	0.15	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	26800	460	4.7	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	252	1.4	0.037	mg/kg	1	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Mercury	0.0083 B	0.033	0.0073	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	11.5	3.7	0.040	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	680	460	7.9	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.48 B	0.92	0.32	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.22 B	0.46	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	3480	460	3.1	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.26 B	0.92	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	24.7	0.92	0.12	mg/kg	1	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Zinc	38.5	1.8	0.15	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16884
- (3) Instrument QC Batch: MA16889
- (4) Prep QC Batch: MP22658
- (5) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28738-16 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.9
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.9		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/12/14	MA	SW846 9045D

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614D	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-16A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0033 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.43 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0026 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.014 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.025			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.037 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0035 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.1			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.015 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.039 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.47  
4

## Report of Analysis

<b>Client Sample ID:</b> VL14-3(0.5-1.5)-030614D <b>Lab Sample ID:</b> MC28738-16B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 88.9
--	--

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.044		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.58		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0035 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0016 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.11		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.036 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	119		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.13		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.5		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00025		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.10		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0053 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.39		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.48  
4

Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Bottle Order Count #
Accutest Quote #	Accutest Job # <u>MC28738</u>

Client / Reporting Information			Project Information							Requested Analysis ( see TEST CODE sheet)											Matrix Codes		
Company Name <u>Watson Solutions</u>			Project Name <u>IDOT-048 McHenry County</u>							Requested Analysis ( see TEST CODE sheet)  <u>NICU</u> <u>SUCS</u> <u>Total Metals</u> <u>TCP/SPLP metals</u> <u>pH</u>											Matrix Codes  DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB - Rinse Blank TB-Trip Blank		
Street Address <u>730 E Banker Ct Ste 500</u>			Billing Information ( If different from Report to)																				
City State Zip <u>Vaner Hills IL 60861</u>			Company Name																				
Project Contact <u>S. Babushkin</u>			Street Address																				
Phone # Fax # <u>847-916-4018</u>			City State Zip																				
Sampler(s) Name(s) Phone # <u>T. Sealle 617-916-4130</u>			Attention: PO#																				
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vol #	Collection					Number of preserved Bottles						LAB USE ONLY									
			Date	Time	Sampled By	Matrix	# of bottles	NICU	INUS	INISCA	INONE	DO Water	MALCO			ENCORE							
1	RL1-1(0.5-1.5)-030614		3-6-14	1045	TW	SO	3												X	X	X	X	X
2	RP2-1(0.5-1.5)-030614			1055																			
3	RP2-2(0.5-1.5)-030614			1105																			
4	RC-1(0.5-1.5)-030614			1115																			
5	RC-1(0.5-1.5)-030614D			1115																			
6	RC-2(0.5-1.5)-030614			1200																			
7	RL3-1(0.5-1.5)-030614			1210																			
8	VL12-1(0.5-1.5)-030614			1225																			
9	VL12-2(0.5-1.5)-030614			1230																			
10	VL12-3(0.5-1.5)-030614			1240																			
11	VL12-4(0.5-1.5)-030614			1250																			
12	RL5-1(0.5-1.5)-030614		3-6-14	1300	TW	SO	3													X	X	X	X
Turnaround Time ( Business days) <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>			Approved By (Accutest PM): / Date: _____				Data Deliverable Information <input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP  Commercial "A" = Results Only Commercial "B" = Results + QC Summary						Comments / Special Instructions <u>Loc 15A, 6PZ</u>										
Relinquished by Sampler: 1 <u>T. Sealle</u>			Date Time: 3-6-14/1500	Received By: <u>[Signature]</u>			Date Time: 3-7-14 3:04	Relinquished By: 2 <u>F200</u>			Date Time: 3-7-14	Received By: <u>[Signature]</u>											
Relinquished by Sampler: 3			Date Time:	Received By:			Date Time:	Relinquished By:			Date Time:	Received By:											
Relinquished by:			Date Time:	Received By:			Custody Seal #	On Ice <input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact						Cooler Temp: <u>21.3, 1.1, 0.8</u>									

51  
5

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <u>MC28738</u>

Client / Reporting Information		Project Information										Requested Analysis (see TEST CODE sheet)												Matrix Codes																									
Company Name <u>Weston Solutions</u>		Project Name <u>IDOT-048 Methuen County</u>										<table border="1"> <tr><td>✓</td><td>VOCs</td><td>✓</td><td>SNOCs</td><td>✓</td><td>Total Metals</td><td>✓</td><td>TECD/SPUP Metals</td><td>✓</td><td>PH</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>												✓	VOCs	✓	SNOCs	✓	Total Metals	✓	TECD/SPUP Metals	✓	PH																<ul style="list-style-type: none"> <li>DW - Drinking Water</li> <li>GW - Ground Water</li> <li>WW - W/Sludge</li> <li>SW - Surface Water</li> <li>SO - Soil</li> <li>SL - Sludge</li> <li>SED - Sediment</li> <li>OL - Oil</li> <li>LIO - Other Liquid</li> <li>AIR - Air</li> <li>SOL - Other Solid</li> <li>WP - Wipe</li> <li>FB - Field Blank</li> <li>EB - Equipment Blank</li> <li>RB - Rinse Blank</li> <li>TB - Trip Blank</li> </ul>
✓	VOCs	✓	SNOCs	✓	Total Metals	✓	TECD/SPUP Metals	✓	PH																																								
Street Address <u>750 E. Banker St Ste 500</u>		Street:																																															
City, State, Zip <u>Vernon Hills IL 60061</u>		Billing Information (if different from Report to): Company Name: _____																																															
Project Contact <u>S. Babunskumar</u>		Street Address: _____																																															
Phone #, Fax # <u>817-918-4018 -4055</u>		City, State, Zip: _____																																															
Sampler(s) Name(s) <u>T. Walk</u>		Client PO#: _____																																															
Field ID / Point of Collection		MEQ#/DI Vial #		Date, Time		Sampled by		Matrix		# of bottles		Number of preserved Bottles																																					
												<table border="1"> <tr><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td><td>✓</td><td></td></tr> </table>										✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓			
✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓																									
13	VL14-1(0.5-1.5)-030614		3-6-14	1310	TW	SO	3					3																																					
14	VL14-2(0.5-1.5)-030614			1320																																													
15	VL14-3(0.5-1.5)-030614			1325																																													
16	VL14-3(0.5-1.5)-030614D			1325																																													
17	DT-1(0.5-1.5)-030614			1340																																													
18	REA-1(0.5-1.5)-030614			1345																																													
19	REA-2(0.5-1.5)-030614		3-6-14	1400	TW	SO	3					3																																					

<b>Turnaround Time (Business days)</b> <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>	Approved By (Accutest PM): / Date: _____	<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP <small>Commercial "A" = Results Only Commercial "B" = Results + QC Summary</small>	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____	Comments / Special Instructions		
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Relinquished by Sampler: <u>T. Walk</u>		Date Time: <u>3-6-14/1500</u>		Received By: <u>[Signature]</u>		Date Time: <u>3-7-14 3:04</u>		Relinquished By: <u>FEDX</u>		Date Time: <u>3-7-14</u>		Received By: <u>[Signature]</u>	
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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
12000 block of US 14 (between Dean Street and S. Eastwood Drive)

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.296463487 Longitude: -88.441762764  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner  
Name: Illinois Department of Transportation  
Street Address: 201 West Center Court  
PO Box: \_\_\_\_\_  
City: Schaumburg State: IL  
Zip Code: 60196-1096 Phone: 847-705-4101  
Contact: Sam Mead  
Email, if available: Sam.Mead@illinois.gov

Site Operator  
Name: Illinois Department of Transportation  
Street Address: 201 West Center Court  
PO Box: \_\_\_\_\_  
City: Schaumburg State: IL  
Zip Code: 60196-1096 Phone: 847-705-4101  
Contact: Sam Mead  
Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.296463487 Longitude: -88.441762764Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATIONS VL15-1 AND VL15-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-78. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28684

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G.

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

**Summary Table of ISGS Site No. 2792-78**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL15-1(0.5-1.5)-030314	VL15-2(0.5-1.5)-030314	VL15-2(0.5-1.5)-030314D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/3/2014	
Location ID	VL15-1	VL15-2	VL15-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
Laboratory pH	8.4	8.5	8.5	<6.25,>9.0
<b>VOCs (ug/kg)</b>				
Benzene	2.1	2	2.2	30
Carbon disulfide	ND	1.3 J	ND	9000
Ethylbenzene	1.4 J	1.3 J	1.3 J	13000
Methylene chloride	1.3 J	1.7 J	1.1 J	20
Toluene	4.3 J	4.8 J	4.5 J	12000
Xylene (Total)	2.7	3.2	2.7	5600
<b>SVOCs (ug/kg)</b>				
Benzo(b)fluoranthene	ND	21.1 J	ND	900 / 1500 / 2100
Benzo(k)fluoranthene	ND	17.1 J	ND	9000
bis(2-Ethylhexyl)phthalate	ND	31.6 J	18.7 J	46000
Butyl benzyl phthalate	ND	17.9 J	ND	930000
Chrysene	ND	15.1 J	ND	88000
<b>Total Metals (mg/kg)</b>				
Arsenic, Total	3.1	5.7	6.4	11.3 / 13
Barium, Total	43.4	39.4	46	1500
Beryllium, Total	0.32 J	0.27 J	0.33 J	22
Cadmium, Total	0.2 J	0.063 J	0.056 J	5.2
Calcium, Total	36000	39300	39500	---
Chromium, Total	10.5	11.5	13.5	21
Cobalt, Total	3.6 J	5.3	5.9	20
Copper, Total	10.8	12	13	2900
Iron, Total	8570	13200	14700	15000 / 15900
Lead, Total	11.6	9.1	9.3	107
Magnesium, Total	21400	21700	22600	325000
Manganese, Total	379	363	373	630 / 636
Mercury, Total	0.025 J	0.012 J	0.014 J	0.89
Nickel, Total	9	11.6	13.2	100
Potassium, Total	592 J	623 J	730 J	---
Selenium, Total	0.34 J	ND	ND	1.3
Silver, Total	0.37 J	0.37 J	0.49	4.4
Sodium, Total	6920	2380	2750	---
Thallium, Total	0.18 J	0.24 J	0.26 J	2.6
Vanadium, Total	15.5	22.6	25.8	550
Zinc, Total	34.3	34.2	38.7	5100
<b>TCLP Metals (mg/l)</b>				
Arsenic, TCLP	ND	0.0041 J	0.003 J	0.05
Barium, TCLP	0.29 J	0.6	0.6	2
Cadmium, TCLP	0.0016 J	0.0015 J	0.002 J	0.005
Cobalt, TCLP	0.0005 J	0.02 J	0.017 J	1
Iron, TCLP	ND	0.22 J	0.42 J	5
Manganese, TCLP	1.2	7.4	6.6	0.15
Nickel, TCLP	0.0079 J	0.018 J	0.017 J	0.1
Selenium, TCLP	0.0088 J	0.0098 J	0.01 J	0.05
Zinc, TCLP	0.015 J	0.021 J	0.032 J	5



**Summary Table of ISGS Site No. 2792-78**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL15-1(0.5-1.5)-030314	VL15-2(0.5-1.5)-030314	VL15-2(0.5-1.5)-030314D	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/3/2014	3/3/2014	3/3/2014	
Location ID	VL15-1	VL15-2	VL15-2	
Depth	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	
Parameter				
<b>SPLP Metals (mg/l)</b>				
Arsenic, SPLP	0.035	0.08	0.1	0.05
Barium, SPLP	0.2 J	0.62 J	0.79 J	2
Beryllium, SPLP	0.0015 J	0.0038 J	0.0052	0.004
Cadmium, SPLP	0.0012 J	0.0021 J	0.0025 J	0.005
Chromium, SPLP	0.062 J	0.13 J	0.17 J	0.1
Cobalt, SPLP	0.015 J	0.049 J	0.061	1
Copper, SPLP	0.068 J	0.17 J	0.2 J	0.65
Iron, SPLP	63.3 J	145 J	186 J	5
Lead, SPLP	0.045	0.12	0.12	0.0075
Manganese, SPLP	0.51	2.3	3	0.15
Mercury, SPLP	ND	0.00023	0.00031	0.002
Nickel, SPLP	0.049	0.12	0.15	0.1
Selenium, SPLP	ND	0.007 J	0.0074 J	0.05
Zinc, SPLP	0.22	0.44	0.53	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28684

Sampling Dates: 03/03/14 - 03/04/14

Report to:

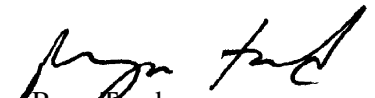
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

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Total number of pages in report: **313**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b> VL15-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.58	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.92	ug/kg	
1330-20-7	Xylene (total)	2.7	2.0	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	92%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	17	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	16	ug/kg	JN
109-66-0	Pentane	6.48	12	ug/kg	JN
1191-96-4	Cyclopropane, ethyl-	7.83	7.9	ug/kg	JN
110-54-3	Hexane	8.46	7.9	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.6	ug/kg	JN
110-82-7	Cyclohexane	9.91	5.5	ug/kg	JN
589-34-4	Hexane, 3-methyl-	10.51	6.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	9.9	ug/kg	JN
	Total TIC, Volatile		88.2	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> VL15-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37340.D	5	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	1300	60	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	2700	68	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	2700	77	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2700	430	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	5300	670	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2700	330	ug/kg	
95-48-7	2-Methylphenol	ND	2700	110	ug/kg	
106-44-5	4-Methylphenol	ND	2700	140	ug/kg	
88-75-5	2-Nitrophenol	ND	2700	71	ug/kg	
100-02-7	4-Nitrophenol	ND	5300	500	ug/kg	
87-86-5	Pentachlorophenol	ND	2700	190	ug/kg	
108-95-2	Phenol	ND	1300	76	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	2700	67	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	2700	66	ug/kg	
83-32-9	Acenaphthene	ND	530	71	ug/kg	
208-96-8	Acenaphthylene	ND	530	53	ug/kg	
120-12-7	Anthracene	ND	530	64	ug/kg	
56-55-3	Benzo(a)anthracene	ND	530	69	ug/kg	
50-32-8	Benzo(a)pyrene	ND	530	57	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	530	67	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	530	53	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	530	80	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1300	67	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1300	54	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1300	72	ug/kg	
106-47-8	4-Chloroaniline	ND	2700	67	ug/kg	
86-74-8	Carbazole	ND	530	63	ug/kg	
218-01-9	Chrysene	ND	530	66	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1300	62	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1300	81	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1300	96	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1300	82	ug/kg	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL15-1(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-4	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 92.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1300	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1300	76	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1300	71	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	2700	180	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	2700	67	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1300	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	530	63	ug/kg	
132-64-9	Dibenzofuran	ND	530	74	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1300	140	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1300	42	ug/kg	
84-66-2	Diethyl phthalate	ND	1300	66	ug/kg	
131-11-3	Dimethyl phthalate	ND	1300	77	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1300	49	ug/kg	
206-44-0	Fluoranthene	ND	530	73	ug/kg	
86-73-7	Fluorene	ND	530	71	ug/kg	
118-74-1	Hexachlorobenzene	ND	1300	83	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1300	77	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	670	ug/kg	
67-72-1	Hexachloroethane	ND	1300	64	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	530	59	ug/kg	
78-59-1	Isophorone	ND	1300	61	ug/kg	
91-57-6	2-Methylnaphthalene	ND	530	68	ug/kg	
88-74-4	2-Nitroaniline	ND	2700	67	ug/kg	
99-09-2	3-Nitroaniline	ND	2700	150	ug/kg	
100-01-6	4-Nitroaniline	ND	2700	67	ug/kg	
91-20-3	Naphthalene	ND	530	85	ug/kg	
98-95-3	Nitrobenzene	ND	1300	72	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1300	76	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	80	ug/kg	
85-01-8	Phenanthrene	ND	530	72	ug/kg	
129-00-0	Pyrene	ND	530	62	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1300	73	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		30-130%
4165-62-2	Phenol-d5	85%		30-130%
118-79-6	2,4,6-Tribromophenol	113%		30-130%
4165-60-0	Nitrobenzene-d5	84%		30-130%
321-60-8	2-Fluorobiphenyl	91%		30-130%

ND = Not detected      MDL - Method Detection Limit  
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 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL15-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	116%		30-130%
CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units Q
98-82-8	Benzene, (1-methylethyl)-	3.69	6200	ug/kg JN
	Total TIC, Semi-Volatile		6200	ug/kg J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL15-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

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## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.87	0.13	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	3.1	0.87	0.18	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	43.4	4.3	0.063	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.32 B	0.35	0.021	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.20 B	0.35	0.037	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	36000	430	5.5	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	10.5	0.87	0.082	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	3.6 B	4.3	0.041	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	10.8	2.2	0.48	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	8570	8.7	0.76	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	11.6	0.87	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	21400	430	4.4	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	379	1.3	0.035	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.025 B	0.034	0.0074	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	9.0	3.5	0.038	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	592	430	7.4	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.34 B	0.87	0.30	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.37 B	0.43	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	6920	430	2.9	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.18 B	0.87	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	15.5	0.87	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	34.3	1.7	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Prep QC Batch: MP22608
- (4) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL



## Report of Analysis

<b>Client Sample ID:</b> VL15-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-4	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	92.9		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.4		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> VL15-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-4A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.29 B	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0016 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00050 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	1.2			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0079 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0088 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.015 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL15-1(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-4B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 92.9
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.035		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.20 B		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0015 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0012 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.062		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.015 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.068		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	63.3		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.045		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.51		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.049		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.22		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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# Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-5	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M63646.D	1	03/07/14	KD	n/a	n/a	MSM2231

Run #1	Initial Weight	Final Volume
Run #2	4.44 g	5.0 ml

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.6	ug/kg	
71-43-2	Benzene	2.0	0.64	0.43	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	0.27	ug/kg	
75-25-2	Bromoform	ND	2.5	0.45	ug/kg	
74-83-9	Bromomethane	ND	2.5	0.77	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.9	ug/kg	
75-15-0	Carbon disulfide	1.3	6.4	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.5	0.28	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.96	ug/kg	
67-66-3	Chloroform	ND	2.5	0.22	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.72	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	0.41	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.5	0.34	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.5	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.5	0.53	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.58	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.53	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.5	0.53	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	0.53	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.33	ug/kg	
100-41-4	Ethylbenzene	1.3	2.5	0.88	ug/kg	J
591-78-6	2-Hexanone	ND	13	0.96	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.5	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.4	0.69	ug/kg	
75-09-2	Methylene chloride	1.7	2.5	0.68	ug/kg	J
100-42-5	Styrene	ND	6.4	0.22	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.50	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.40	ug/kg	
108-88-3	Toluene	4.8	6.4	0.26	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.28	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.13  
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## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-5	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.73	ug/kg	
79-01-6	Trichloroethene	ND	2.5	0.31	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	1.2	ug/kg	
1330-20-7	Xylene (total)	3.2	2.5	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
	Unknown	6.07	18	ug/kg	JN
75-28-5	Isobutane	6.49	20	ug/kg	JN
79-29-8	Butane, 2,3-dimethyl-	7.84	9.6	ug/kg	JN
110-82-7	Cyclohexane	9.92	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	10	ug/kg	JN
	Total TIC, Volatile		65.2	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL15-2(0.5-1.5)-030314	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-5	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37341.D	1	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	29	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	21.1	110	14	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	17.1	110	17	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	17.9	280	11	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	15.1	110	14	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314	
<b>Lab Sample ID:</b> MC28684-5	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	31.6	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		30-130%
4165-62-2	Phenol-d5	72%		30-130%
118-79-6	2,4,6-Tribromophenol	88%		30-130%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	79%		30-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-5 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.5
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	5800	ug/kg	JN
	Total TIC, Semi-Volatile		5800	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-5	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.7	0.90	0.19	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	39.4	4.5	0.066	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.27 B	0.36	0.022	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.063 B	0.36	0.038	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	39300	450	5.7	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	11.5	0.90	0.086	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.3	4.5	0.042	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	12.0	2.3	0.50	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13200	9.0	0.79	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	9.1	0.90	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	21700	450	4.6	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	363	1.4	0.036	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.012 B	0.035	0.0076	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	11.6	3.6	0.040	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	623	450	7.7	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.90	0.31	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.37 B	0.45	0.11	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2380	450	3.0	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.24 B	0.90	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	22.6	0.90	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	34.2	1.8	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Prep QC Batch: MP22608
- (4) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-5	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.5		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.5		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

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# Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-5A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.5
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0041 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.60	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.020 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.22			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	7.4			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.018 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.0098 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.021 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314 <b>Lab Sample ID:</b> MC28684-5B <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 88.5
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**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.080		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.62		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0038 B		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0021 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.049 B		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	145		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.3		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00023		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.12		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0070 B		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/11/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.44		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16847
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.15  
4

# Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314D	
<b>Lab Sample ID:</b> MC28684-7	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63648.D	1	03/07/14	KD	n/a	n/a	MSM2231
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.81 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	3.4	ug/kg	
71-43-2	Benzene	2.2	0.61	0.41	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.26	ug/kg	
75-25-2	Bromoform	ND	2.4	0.43	ug/kg	
74-83-9	Bromomethane	ND	2.4	0.73	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.8	ug/kg	
75-15-0	Carbon disulfide	ND	6.1	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.27	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.1	0.92	ug/kg	
67-66-3	Chloroform	ND	2.4	0.21	ug/kg	
74-87-3	Chloromethane	ND	6.1	0.69	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.4	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.4	0.39	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.4	0.50	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.4	0.55	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.4	0.51	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.4	0.51	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.51	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.32	ug/kg	
100-41-4	Ethylbenzene	1.3	2.4	0.84	ug/kg	J
591-78-6	2-Hexanone	ND	12	0.93	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.4	0.22	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	6.1	0.66	ug/kg	
75-09-2	Methylene chloride	1.1	2.4	0.65	ug/kg	J
100-42-5	Styrene	ND	6.1	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.48	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.38	ug/kg	
108-88-3	Toluene	4.5	6.1	0.25	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.27	ug/kg	

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.19  
4

## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.70	ug/kg	
79-01-6	Trichloroethene	ND	2.4	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	1.1	ug/kg	
1330-20-7	Xylene (total)	2.7	2.4	0.27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	40	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.06	21	ug/kg	JN
109-66-0	Pentane	6.49	22	ug/kg	JN
107-81-3	Pentane, 2-bromo-	7.84	13	ug/kg	JN
110-54-3	Hexane	8.46	11	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
	Total TIC, Volatile		119	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.19  
4

## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314D	
<b>Lab Sample ID:</b> MC28684-7	<b>Date Sampled:</b> 03/03/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/05/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37343.D	1	03/10/14	KR	03/05/14	OP37063	MSR1379
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	290	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	580	15	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	580	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	580	95	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	580	73	ug/kg	
95-48-7	2-Methylphenol	ND	580	23	ug/kg	
106-44-5	4-Methylphenol	ND	580	30	ug/kg	
88-75-5	2-Nitrophenol	ND	580	16	ug/kg	
100-02-7	4-Nitrophenol	ND	1200	110	ug/kg	
87-86-5	Pentachlorophenol	ND	580	41	ug/kg	
108-95-2	Phenol	ND	290	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	580	15	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	580	14	ug/kg	
83-32-9	Acenaphthene	ND	120	16	ug/kg	
208-96-8	Acenaphthylene	ND	120	12	ug/kg	
120-12-7	Anthracene	ND	120	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	120	15	ug/kg	
50-32-8	Benzo(a)pyrene	ND	120	13	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	120	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	120	12	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	120	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	290	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	290	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	290	16	ug/kg	
106-47-8	4-Chloroaniline	ND	580	15	ug/kg	
86-74-8	Carbazole	ND	120	14	ug/kg	
218-01-9	Chrysene	ND	120	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	290	14	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	290	18	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	290	21	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	290	18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	VL15-2(0.5-1.5)-030314D	<b>Date Sampled:</b>	03/03/14
<b>Lab Sample ID:</b>	MC28684-7	<b>Date Received:</b>	03/05/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	290	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	290	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	290	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	580	39	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	580	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	290	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	120	14	ug/kg	
132-64-9	Dibenzofuran	ND	120	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	290	31	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	290	9.1	ug/kg	
84-66-2	Diethyl phthalate	ND	290	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	290	17	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	18.7	290	11	ug/kg	J
206-44-0	Fluoranthene	ND	120	16	ug/kg	
86-73-7	Fluorene	ND	120	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	290	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	290	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	580	150	ug/kg	
67-72-1	Hexachloroethane	ND	290	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	120	13	ug/kg	
78-59-1	Isophorone	ND	290	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	120	15	ug/kg	
88-74-4	2-Nitroaniline	ND	580	15	ug/kg	
99-09-2	3-Nitroaniline	ND	580	32	ug/kg	
100-01-6	4-Nitroaniline	ND	580	15	ug/kg	
91-20-3	Naphthalene	ND	120	19	ug/kg	
98-95-3	Nitrobenzene	ND	290	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	290	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	290	18	ug/kg	
85-01-8	Phenanthrene	ND	120	16	ug/kg	
129-00-0	Pyrene	ND	120	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	290	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-130%
4165-62-2	Phenol-d5	74%		30-130%
118-79-6	2,4,6-Tribromophenol	90%		30-130%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314D <b>Lab Sample ID:</b> MC28684-7 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/03/14 <b>Date Received:</b> 03/05/14 <b>Percent Solids:</b> 85.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	94%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.70	6300	ug/kg	JN
	Total TIC, Semi-Volatile		6300	ug/kg	J

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.19  
4

# Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.93	0.14	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.4	0.93	0.19	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	46.0	4.6	0.067	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.33 B	0.37	0.022	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.056 B	0.37	0.039	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	39500	460	5.8	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	13.5	0.93	0.088	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.9	4.6	0.043	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	13.0	2.3	0.51	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	14700	9.3	0.80	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	9.3	0.93	0.16	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	22600	460	4.7	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	373	1.4	0.037	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.014 B	0.037	0.0082	mg/kg	1	03/11/14	03/11/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	13.2	3.7	0.041	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	730	460	7.9	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.93	0.32	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.49	0.46	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2750	460	3.1	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.26 B	0.93	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	25.8	0.93	0.12	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	38.7	1.9	0.15	mg/kg	1	03/06/14	03/07/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16839
- (2) Instrument QC Batch: MA16843
- (3) Prep QC Batch: MP22608
- (4) Prep QC Batch: MP22635

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-7	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	85.1		%	1	03/06/14	MC	SM21 2540 B MOD.
pH	8.5		su	1	03/06/14	MA	SW846 9045D

RL = Reporting Limit

4.19  
**4**

## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-7A	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0030 B	D004	5.0	0.010	0.0029	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Barium	0.60	D005	100	0.50	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0020 B	D006	1.0	0.0040	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.017 B			0.050	0.00040	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Copper	0.0070 U			0.025	0.0070	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Iron	0.42			0.10	0.020	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Manganese	6.6			0.015	0.00081	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/10/14	03/10/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/10/14	03/12/14	EAL SW846 6010C <sup>3</sup>
Selenium	0.010 B	D010	1.0	0.025	0.0048	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.032 B			0.10	0.00050	mg/l	1	03/10/14	03/11/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16836
- (2) Instrument QC Batch: MA16845
- (3) Instrument QC Batch: MA16858
- (4) Prep QC Batch: MP22626
- (5) Prep QC Batch: MP22631

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

4.20  
4

## Report of Analysis

<b>Client Sample ID:</b> VL15-2(0.5-1.5)-030314D	<b>Date Sampled:</b> 03/03/14
<b>Lab Sample ID:</b> MC28684-7B	<b>Date Received:</b> 03/05/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.10		0.010	0.0029	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.79		0.50	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0052		0.0040	0.00025	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0025 B		0.0040	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.17		0.010	0.0014	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.061		0.050	0.00040	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.20		0.025	0.0070	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Iron	186		0.10	0.020	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.12		0.010	0.0017	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Manganese	3.0		0.015	0.00081	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00031		0.00020	0.00010	mg/l	1	03/07/14	03/10/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.15		0.040	0.00057	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0074 B		0.025	0.0048	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/07/14	03/14/14 EAL	SW846 6010C <sup>3</sup>
Zinc	0.53		0.10	0.00050	mg/l	1	03/07/14	03/07/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16829
- (2) Instrument QC Batch: MA16834
- (3) Instrument QC Batch: MA16871
- (4) Prep QC Batch: MP22614
- (5) Prep QC Batch: MP22617

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.21  
4

**CHAIN OF CUSTODY**

Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL. 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC 28684</b>

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)				Matrix Codes
Company Name <b>Boston Solutions</b>		Project Name <b>IDOT-048 McHenry County</b>		Requested Analysis (see TEST CODE sheet): VOCs, SVOCs, Total Metals, TCU/SALP Metals, PH				DW - Drinking Water GW - Ground Water W7 - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <b>750 E. Banker Ct Ste 500</b>		Street:						
City State Zip <b>Nevan Hills IL 60001</b>		Billing Information ( If different from Report to)						
Project Contact <b>S. Babusan Kumar</b>		Street Address						
Phone # Fax # <b>847-918-4018 -4055</b>		City State Zip						
Sampler Name(s) <b>David ...</b>		Project Manager <b>Matt Morvell</b>		Attention: PGM				

Accutest Sample #	Field ID / Point of Collection	MECH/ID/Vial #	Collection		Sampled by	Matrix	# of bottles	Number of preserved bottles											LAB USE ONLY							
			Date	Time				HCl	NH <sub>4</sub> NH <sub>2</sub>	PICHS	128204	NO <sub>2</sub>	NO <sub>3</sub>	NO <sub>2</sub> + NO <sub>3</sub>	EDCONE	Bismuth										
-1	35-1(0.5-1.5)-030314		3-3-14	10:30	DS	So	3																			
-2	35-3(0.5-1.5)-030314			11:00			3																			
-3	35-5(0.5-1.5)-030314			11:20			3																			
-4	VL15-1(0.5-1.5)-030314			11:40			3																			
-5	VL15-2(0.5-1.5)-030314			12:00			3																			
-6	VL1 RL4-1(0.5-1.5)-030314			12:25			3																			
-7	VL15-2(0.5-1.5)-030314			12:00			3																			
-8	RL4-2(0.5-1.5)-030314			12:45			3																			
-9	VL13-1(0.5-1.5)-030314			13:10			3																			
-10	VL13-2(0.5-1.5)-030314			13:25			3																			
-11	VL13-3(0.5-1.5)-030314			13:50			3																			
-12	VL13-4(0.5-1.5)-030314			14:15			3																			

<b>Turnaround Time ( Business days)</b> <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink	Approved By (Accutest PM) / Date: _____	<input type="checkbox"/> Commercial "A" ( Level 1) <input type="checkbox"/> Commercial "B" ( Level 2) <input type="checkbox"/> FULLT1 ( Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____	Comments / Special Instructions <p style="text-align: center;"><b>14E, 6FI</b></p>
--	---	--	---	---

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: <b>David ...</b>	Date Time: <b>3-4-14/15:15</b>	Received By: <b>...</b>	Relinquished By: <b>...</b>	Date Time: <b>3/5/14</b>	Received By: <b>...</b>
3		3	4		
5		5	Custody Seal # <input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> On Ice <input checked="" type="checkbox"/> Cooler Temp. <b>1.1°C</b>		

5.1 5





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
12322 Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.296024247 Longitude: -88.439595036  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RDLatitude: 42.296024247 Longitude: -88.439595036Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

LOCATION DT-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-79. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28738

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 6/2/14

**Summary Table of ISGS Site No. 2792-79**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	DT-1(0.5-1.5)-030614	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/6/2014	
Location ID	DT-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.5	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.2	30
Ethylbenzene	0.78 J	13000
Methylene chloride	0.84 J	20
Toluene	2.6 J	12000
Xylene (Total)	2.1	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	42 J	46000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	5.4	11.3 / 13
Barium, Total	31.5	1500
Beryllium, Total	0.25 J	22
Cadmium, Total	0.064 J	5.2
Calcium, Total	48800	---
Chromium, Total	13.9	21
Cobalt, Total	5.5	20
Copper, Total	13	2900
Iron, Total	13500	15000 / 15900
Lead, Total	13.2	107
Magnesium, Total	23400	325000
Manganese, Total	299	630 / 636
Mercury, Total	0.025 J	0.89
Nickel, Total	14.7	100
Potassium, Total	630	---
Sodium, Total	2470	---
Thallium, Total	0.39 J	2.6
Vanadium, Total	23.5	550
Zinc, Total	36.2	5100
<b>TCLP Metals (mg/l)</b>		
Arsenic, TCLP	0.0034 J	0.05
Barium, TCLP	0.44 J	2
Cadmium, TCLP	0.0015 J	0.005
Cobalt, TCLP	0.018 J	1
Copper, TCLP	0.01 J	0.65
Iron, TCLP	0.023 J	5
Lead, TCLP	0.0031 J	0.0075
Manganese, TCLP	5.5	0.15
Nickel, TCLP	0.019 J	0.1
Zinc, TCLP	0.01 J	5

**Summary Table of ISGS Site No. 2792-79**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	DT-1(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	
Location ID	DT-1	
Depth	0.5 - 1.5	
Parameter		
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.06	0.05
Barium, SPLP	0.72	2
Beryllium, SPLP	0.0042 J	0.004
Cadmium, SPLP	0.0015 J	0.005
Chromium, SPLP	0.12	0.1
Cobalt, SPLP	0.049 J	1
Copper, SPLP	0.16	0.65
Iron, SPLP	153	5
Lead, SPLP	0.093	0.0075
Manganese, SPLP	2.3	0.15
Mercury, SPLP	0.00028 J	0.002
Nickel, SPLP	0.14	0.1
Selenium, SPLP	0.0086 J	0.05
Silver, SPLP	0.0016 J	0.05
Zinc, SPLP	0.44 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28738

Sampling Date: 03/06/14

Report to:

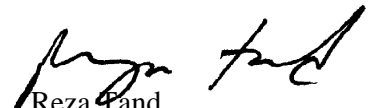
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **298**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	DT-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-17	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.7
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63878.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	6.20 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.0	2.5	ug/kg	
71-43-2	Benzene	1.2	0.45	0.30	ug/kg	
75-27-4	Bromodichloromethane	ND	1.8	0.19	ug/kg	
75-25-2	Bromoform	ND	1.8	0.32	ug/kg	
74-83-9	Bromomethane	ND	1.8	0.54	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.0	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	4.5	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.8	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.14	ug/kg	
75-00-3	Chloroethane	ND	4.5	0.68	ug/kg	
67-66-3	Chloroform	ND	1.8	0.15	ug/kg	
74-87-3	Chloromethane	ND	4.5	0.51	ug/kg	
124-48-1	Dibromochloromethane	ND	1.8	0.29	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.8	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.8	0.29	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.8	0.37	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.8	0.41	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.8	0.38	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.8	0.38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.8	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.8	0.20	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.8	0.24	ug/kg	
100-41-4	Ethylbenzene	0.78	1.8	0.62	ug/kg	J
591-78-6	2-Hexanone	ND	9.0	0.68	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.8	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.5	0.48	ug/kg	
75-09-2	Methylene chloride	0.84	1.8	0.48	ug/kg	J
100-42-5	Styrene	ND	4.5	0.15	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.8	0.35	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.28	ug/kg	
108-88-3	Toluene	2.6	4.5	0.18	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.20	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.8	0.52	ug/kg	
79-01-6	Trichloroethene	ND	1.8	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	1.8	0.82	ug/kg	
1330-20-7	Xylene (total)	2.1	1.8	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	42	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.06	13	ug/kg	JN
109-66-0	Pentane	6.48	13	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	8	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	5.2	ug/kg	JN
110-54-3	Hexane	8.46	8.1	ug/kg	JN
110-82-7	Cyclohexane	9.91	5.3	ug/kg	JN
142-82-5	Heptane	10.51	4.7	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	7	ug/kg	JN
	Total TIC, Volatile		106.3	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.49  
4

## Report of Analysis

<b>Client Sample ID:</b> DT-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-17	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71773.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	90	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	69	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> DT-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-17	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.6	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	42.0	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-130%
4165-62-2	Phenol-d5	69%		30-130%
118-79-6	2,4,6-Tribromophenol	81%		30-130%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> DT-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-17 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	78%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5400	ug/kg	JN
	Total TIC, Semi-Volatile		5400	ug/kg	J

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> DT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-17	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.92	0.14	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.4	0.92	0.19	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	31.5	4.6	0.067	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.25 B	0.37	0.022	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.064 B	0.37	0.039	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	48800	460	5.8	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	13.9	0.92	0.088	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.5	4.6	0.043	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	13.0	2.3	0.51	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13500	9.2	0.80	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	13.2	0.92	0.15	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	23400	460	4.7	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	299	1.4	0.037	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.025 B	0.036	0.0079	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	14.7	3.7	0.040	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	630	460	7.9	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.92	0.32	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.46	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	2470	460	3.0	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.39 B	0.92	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	23.5	0.92	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	36.2	1.8	0.15	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16889
- (3) Prep QC Batch: MP22658
- (4) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> DT-1(0.5-1.5)-030614 <b>Lab Sample ID:</b> MC28738-17 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/06/14 <b>Date Received:</b> 03/07/14 <b>Percent Solids:</b> 89.7
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	89.7		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.5		su	1	03/12/14	MA	SW846 9045D

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RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> DT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-17A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0034 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.44 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0015 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.018 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.010 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.023 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0031 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	5.5			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.019 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.010 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> DT-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-17B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.7
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.060		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.72		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0042		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0015 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.12		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.049 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.16		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	153		0.10	0.020	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>3</sup>
Lead	0.093		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.3		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00028		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.14		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0086 B		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0016 B		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.44		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Instrument QC Batch: MA16892
- (4) Prep QC Batch: MP22673
- (5) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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Accutest Laboratories of New England  
495 Technology Center West, Building One  
TEL: 508-481-6200 FAX: 508-481-7753  
www.accutest.com

FED-Ex Tracking # \_\_\_\_\_ Bottle Order Count # \_\_\_\_\_  
Accutest Quote # \_\_\_\_\_ Accutest Job # MC28738

Client / Reporting Information		Project Information				Requested Analysis ( see TEST CODE sheet)										Matrix Codes	
Company Name <u>Watson Solutions</u>		Project Name <u>IDOT-048 McHenry County</u>				<p><i>Vertical handwritten notes:</i> VCCS SNOCS Total Metals TCP/SPLP metals PH</p>										<p>DIW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB- Rinse Blank TB-Trip Blank</p>	
Street Address <u>730 E Banker Ct Ste 500</u>		Billing Information (if different from Report to)															
City State Zip <u>Jarvis Hills IL 60861</u>		Company Name															
Project Contact <u>S. Baboushian</u>		Street Address															
Phone # <u>647-916-4016</u>		City State Zip															
Sampler(s) Name(s) <u>T. Sells 617-916-4130</u>		Attention: PO#															
Accutest Sample #	Field ID / Point of Collection	MEQ/DI Vol #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NO3	INDS	HSIO4	NO2E	DO Meter	MALCO	ENCORE	Bioburden	LAB USE ONLY
1	RL1-1(0.5-1.5)-030614		3-6-14	1045	TW	SO	3										X
2	RP2-1(0.5-1.5)-030614			1055													X
3	RP2-2(0.5-1.5)-030614			1105													X
4	RC-1(0.5-1.5)-030614			1115													X
5	RC-1(0.5-1.5)-030614D			1115													X
6	RC-2(0.5-1.5)-030614			1200													X
7	RL3-1(0.5-1.5)-030614			1210													X
8	VL12-1(0.5-1.5)-030614			1225													X
9	VL12-2(0.5-1.5)-030614			1230													X
10	VL12-3(0.5-1.5)-030614			1240													X
11	VL12-4(0.5-1.5)-030614			1250													X
12	RL5-1(0.5-1.5)-030614		3-6-14	1300	TW	SO	3										X

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**MC28738: Chain of Custody**  
**Page 1 of 3**

FED-EX Tracking # Accutest Quote #		Bottle Order Control # Accutest Job # <b>MC28738</b>													
<b>Client / Reporting Information</b> Company Name: <b>Weston Solutions</b> Street Address: <b>750 E. Banker Ct Ste 500</b> City: <b>Vernon Hills IL</b> State: <b>60061</b> Project Contact: <b>S. Babusankaran</b> Phone #: <b>817-918-4018</b> Fax #: <b>-4055</b> Sampler(s) Name(s): <b>T. Walk</b> Phone #: <b>817-918-4180</b>		<b>Project Information</b> Project Name: <b>IDOT-048 McHenry County</b> Street: _____ Billing Information (If different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project#: _____ Client PO#: _____ Project Manager: _____ Attention: _____ PO#: _____													
<b>Requested Analysis (see TEST CODE sheet)</b>		<b>Matrix Codes</b>													
DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank		VOCs SVOCs Total Metals TELP/SLIP metals PH													
Actual Sample #	Field ID / Point of Collection	MEQ/VDI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCO NHCO NHCO H2SO4 NONE DI Water MICH ENCORE Burette	Number of preserved Bottles	X X X X X X X X X X	LAB USE ONLY				
13	VL14-1(0.5-1.5)-030614		3-6-14	1310	TW	SO	3		3						
14	VL14-2(0.5-1.5)-030614			1320											
15	VL14-3(0.5-1.5)-030614			1325											
16	VL14-3(0.5-1.5)-030614D			1325											
17	DT-1(0.5-1.5)-030614			1340											
18	REA-1(0.5-1.5)-030614			1345											
19	REA-2(0.5-1.5)-030614		3-6-14	1400	TW	SO	3		3						
<b>Data Deliverable Information</b>															
Turnaround Time (Business days) <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink				Approved By (Accutest PM): / Date: _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> CT RCP <input type="checkbox"/> EDD Format <input type="checkbox"/> MA MCP <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary				Comments / Special Instructions			
Sample Custody must be documented below each time samples change possession, including courier delivery.															
Relinquished by Sampler: 1 <b>T. Walk</b>	Date Time: 3-6-14/1500	Received By: <b>S. Babusankaran</b>	Date Time: 3-7-14 3:04	Relinquished By: <b>FEDX</b>	Date Time: 3-7-14 3:30	Received By: <b>CHICAGO SC</b>									
Relinquished by Sampler: 3	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:									
Relinquished by: 5	Date Time:	Received By:	Date Time:	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable <input type="checkbox"/>	<input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp.								

5.1  
5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
12320 Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.295885562 Longitude: -88.438889009  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.295885562 Longitude: -88.438889009

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS REA-1 AND REA-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-80. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28738

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764


Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:



Date:



**Summary Table of ISGS Site No. 2792-80**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	REA-1(0.5-1.5)-030614	REA-2(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	
Location ID	REA-1	REA-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.4	8.9	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	2.2	2	30
Ethylbenzene	1.1 J	1.2 J	13000
Methylene chloride	0.75 J	1.4 J	20
Toluene	3.8 J	4.2 J	12000
Xylene (Total)	2.6	2.8	5600
<b>SVOCs (ug/kg)</b>			
bis(2-Ethylhexyl)phthalate	14.2 J	45.3 J	46000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	4.7	6.2	11.3 / 13
Barium, Total	22.9	25.9	1500
Beryllium, Total	0.21 J	0.25 J	22
Cadmium, Total	ND	0.047 J	5.2
Calcium, Total	104000	51900	---
Chromium, Total	7.8	9.9	21
Cobalt, Total	3.7 J	5	20
Copper, Total	17.6	13	2900
Iron, Total	10300	13500	15000 / 15900
Lead, Total	7	6.9	107
Magnesium, Total	37200	27500	325000
Manganese, Total	263	328	630 / 636
Mercury, Total	0.014 J	0.0091 J	0.89
Nickel, Total	9.4	12	100
Potassium, Total	592	628	---
Selenium, Total	0.47 J	ND	1.3
Silver, Total	ND	0.12 J	4.4
Sodium, Total	2050	1850	---
Thallium, Total	0.22 J	0.41 J	2.6
Vanadium, Total	18.4	23.4	550
Zinc, Total	26.5	36.6	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	ND	0.0029 J	0.05
Barium, TCLP	0.45 J	0.28 J	2
Cadmium, TCLP	0.001 J	0.0008 J	0.005
Cobalt, TCLP	0.0032 J	0.0007 J	1
Copper, TCLP	0.0086 J	0.0076 J	0.65
Manganese, TCLP	3.3	1.2	0.15
Nickel, TCLP	0.016 J	0.011 J	0.1
Selenium, TCLP	0.0052 J	ND	0.05
Zinc, TCLP	0.011 J	0.0092 J	5

**Summary Table of ISGS Site No. 2792-80**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	REA-1(0.5-1.5)-030614	REA-2(0.5-1.5)-030614	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/6/2014	3/6/2014	
Location ID	REA-1	REA-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.048	0.057	0.05
Barium, SPLP	0.49 J	0.53	2
Beryllium, SPLP	0.0027 J	0.0044 J	0.004
Cadmium, SPLP	0.0011 J	0.0014 J	0.005
Chromium, SPLP	0.087	0.13	0.1
Cobalt, SPLP	0.031 J	0.033 J	1
Copper, SPLP	0.13	0.17	0.65
Iron, SPLP	110	148	5
Lead, SPLP	0.063	0.083	0.0075
Manganese, SPLP	1.5	1.7	0.15
Mercury, SPLP	0.00024 J	0.00034 J	0.002
Nickel, SPLP	0.1	0.11	0.1
Zinc, SPLP	0.35 J	0.44 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28738

Sampling Date: 03/06/14

Report to:

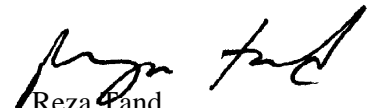
Weston Solutions, Inc.

andris.slesers@westonsolutions.com  
Kathryne.Frey@WestonSolutions.com  
ATTN: Andris Slesres

Total number of pages in report: **298**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Reza Fand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Report of Analysis

<b>Client Sample ID:</b> REA-1(0.5-1.5)-030614	
<b>Lab Sample ID:</b> MC28738-18	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63879.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.29 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	2.2	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.63	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.79	ug/kg	
67-66-3	Chloroform	ND	2.1	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.59	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.44	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	1.1	2.1	0.72	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	0.75	2.1	0.55	ug/kg	J
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.33	ug/kg	
108-88-3	Toluene	3.8	5.2	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.23	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.52  
 4

## Report of Analysis

<b>Client Sample ID:</b> REA-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.60	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.95	ug/kg	
1330-20-7	Xylene (total)	2.6	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	44	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	21	ug/kg	JN
109-66-0	Pentane	6.48	18	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	12	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.15	6.5	ug/kg	JN
110-54-3	Hexane	8.46	12	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	6.7	ug/kg	JN
110-82-7	Cyclohexane	9.92	7.1	ug/kg	JN
142-82-5	Heptane	10.51	6.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.17	11	ug/kg	JN
	Total TIC, Volatile		144.9	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.52  
4

## Report of Analysis

<b>Client Sample ID:</b>	REA-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-18	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71774.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	270	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	550	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	550	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	550	89	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	550	68	ug/kg	
95-48-7	2-Methylphenol	ND	550	22	ug/kg	
106-44-5	4-Methylphenol	ND	550	28	ug/kg	
88-75-5	2-Nitrophenol	ND	550	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	550	38	ug/kg	
108-95-2	Phenol	ND	270	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	550	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	550	13	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	270	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	270	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	270	15	ug/kg	
106-47-8	4-Chloroaniline	ND	550	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	270	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	270	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	270	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	270	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	REA-1(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-18	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	270	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	270	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	270	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	550	36	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	550	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	270	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	270	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	270	8.5	ug/kg	
84-66-2	Diethyl phthalate	ND	270	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	270	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	14.2	270	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	270	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	550	140	ug/kg	
67-72-1	Hexachloroethane	ND	270	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	270	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	550	14	ug/kg	
99-09-2	3-Nitroaniline	ND	550	30	ug/kg	
100-01-6	4-Nitroaniline	ND	550	14	ug/kg	
91-20-3	Naphthalene	ND	110	17	ug/kg	
98-95-3	Nitrobenzene	ND	270	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	270	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	270	16	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	270	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		30-130%
4165-62-2	Phenol-d5	61%		30-130%
118-79-6	2,4,6-Tribromophenol	68%		30-130%
4165-60-0	Nitrobenzene-d5	59%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> REA-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.52  
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	66%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	4600	ug/kg	JN
	Total TIC, Semi-Volatile		4600	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> REA-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.90	0.14	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	4.7	0.90	0.19	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	22.9	4.5	0.065	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.21 B	0.36	0.021	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.038 U	0.36	0.038	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	104000	4500	56	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	7.8	0.90	0.085	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	3.7 B	4.5	0.042	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	17.6	2.2	0.50	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	10300	9.0	0.78	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	7.0	0.90	0.15	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	37200	450	4.6	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	263	1.3	0.036	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.014 B	0.033	0.0072	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	9.4	3.6	0.039	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	592	450	7.7	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.47 B	0.90	0.31	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.11 U	0.45	0.11	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	2050	450	3.0	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.22 B	0.90	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	18.4	0.90	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	26.5	1.8	0.14	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16884
- (3) Instrument QC Batch: MA16889
- (4) Prep QC Batch: MP22658
- (5) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> REA-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-18	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	90.8		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/12/14	MA	SW846 9045D

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> REA-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-18A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.45 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0032 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0086 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	3.3			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.016 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0052 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.011 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.53  
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## Report of Analysis

<b>Client Sample ID:</b> REA-1(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-18B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.048		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.49 B		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0027 B		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0011 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.087		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.031 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.13		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	110		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.063		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.5		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00024		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.10		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.35		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.54  
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**Report of Analysis**

<b>Client Sample ID:</b>	REA-2(0.5-1.5)-030614	
<b>Lab Sample ID:</b>	MC28738-19	<b>Date Sampled:</b> 03/06/14
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b> 03/07/14
<b>Method:</b>	SW846 8260C	<b>Percent Solids:</b> 88.8
<b>Project:</b>	IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63880.D	1	03/18/14	KD	n/a	n/a	MSM2239
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.46 g	5.0 ml
Run #2		

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.9	ug/kg	
71-43-2	Benzene	2.0	0.52	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.22	ug/kg	
75-25-2	Bromoform	ND	2.1	0.37	ug/kg	
74-83-9	Bromomethane	ND	2.1	0.62	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.78	ug/kg	
67-66-3	Chloroform	ND	2.1	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.1	0.28	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.1	0.33	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.1	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	0.47	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	0.43	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.1	0.43	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.27	ug/kg	
100-41-4	Ethylbenzene	1.2	2.1	0.71	ug/kg	J
591-78-6	2-Hexanone	ND	10	0.78	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.1	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.2	0.56	ug/kg	
75-09-2	Methylene chloride	1.4	2.1	0.55	ug/kg	J
100-42-5	Styrene	ND	5.2	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.41	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.32	ug/kg	
108-88-3	Toluene	4.2	5.2	0.21	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.22	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.55  
**4**

# Report of Analysis

<b>Client Sample ID:</b> REA-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.59	ug/kg	
79-01-6	Trichloroethene	ND	2.1	0.25	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.94	ug/kg	
1330-20-7	Xylene (total)	2.8	2.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.10	38	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.08	18	ug/kg	JN
109-66-0	Pentane	6.49	15	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.84	11	ug/kg	JN
110-54-3	Hexane	8.46	9.1	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	6	ug/kg	JN
110-82-7	Cyclohexane	9.91	6.3	ug/kg	JN
142-82-5	Heptane	10.51	5.4	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	9.3	ug/kg	JN
	Total TIC, Volatile		118.1	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.55  
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## Report of Analysis

<b>Client Sample ID:</b>	REA-2(0.5-1.5)-030614	<b>Date Sampled:</b>	03/06/14
<b>Lab Sample ID:</b>	MC28738-19	<b>Date Received:</b>	03/07/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.8
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F71775.D	1	03/12/14	KR	03/07/14	OP37098	MSF3195
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	70	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	28	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> REA-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

4.55  
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**ABN Special List**

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	45.3	280	10	ug/kg	J
206-44-0	Fluoranthene	ND	110	15	ug/kg	
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	ND	110	13	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	67%		30-130%
4165-62-2	Phenol-d5	67%		30-130%
118-79-6	2,4,6-Tribromophenol	86%		30-130%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> REA-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	87%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.59	5300	ug/kg	JN
	Total TIC, Semi-Volatile		5300	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> REA-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.93	0.14	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.2	0.93	0.19	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	25.9	4.7	0.068	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.25 B	0.37	0.022	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.047 B	0.37	0.039	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	51900	470	5.8	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	9.9	0.93	0.088	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.0	4.7	0.044	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	13.0	2.3	0.52	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	13500	9.3	0.81	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	6.9	0.93	0.16	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	27500	470	4.8	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	328	1.4	0.037	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.0091 B	0.033	0.0073	mg/kg	1	03/19/14	03/19/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.0	3.7	0.041	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	628	470	8.0	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.93	0.32	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 B	0.47	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1850	470	3.1	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.41 B	0.93	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	23.4	0.93	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	36.6	1.9	0.15	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16889
- (3) Prep QC Batch: MP22658
- (4) Prep QC Batch: MP22696

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> REA-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-19	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.8		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.9		su	1	03/12/14	MA	SW846 9045D

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RL = Reporting Limit

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# Report of Analysis

<b>Client Sample ID:</b> REA-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-19A	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.28 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.00080 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00070 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0076 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.2			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.011 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.0092 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16880
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22676
- (4) Prep QC Batch: MP22682

RL = Reporting Limit      MDL = Method Detection Limit      U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> REA-2(0.5-1.5)-030614	<b>Date Sampled:</b> 03/06/14
<b>Lab Sample ID:</b> MC28738-19B	<b>Date Received:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.8
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.057		0.010	0.0029	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.53		0.50	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0044		0.0040	0.00025	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0014 B		0.0040	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.13		0.010	0.0014	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.033 B		0.050	0.00040	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.17		0.025	0.0070	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Iron	148		0.10	0.020	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.083		0.010	0.0017	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.7		0.015	0.00081	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00034		0.00020	0.00010	mg/l	1	03/17/14	03/17/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.11		0.040	0.00057	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.44		0.10	0.00050	mg/l	1	03/17/14	03/17/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16869
- (2) Instrument QC Batch: MA16885
- (3) Prep QC Batch: MP22673
- (4) Prep QC Batch: MP22675

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

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FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC28738</b>

Client / Reporting Information			Project Information						Requested Analysis ( see TEST CODE sheet)												Matrix Codes										
Company Name: <b>Watson Solutions</b>			Project Name: <b>IDOT-048 McHenry County</b>						<p><i>Handwritten notes in analysis columns:</i>            Ni-Cr            SNOCS            Total Metals            TCP/SPLP methods            PH</p>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment Of - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB- Rinse Blank TB-Trip Blank										
Street Address: <b>730 E Banker Ct Ste 500</b>			Billing Information ( If different from Report to )																												
City: <b>Vaner Hills IL 60861</b>			Company Name																												
Project Contact: <b>S. Baboushian</b>			Street Address																												
Phone #: <b>847-916-4018</b>			City: _____ State: _____ Zip: _____																												
Sampler(s) Name(s): <b>T. Sells 617-916-4130</b>			Client PO#																												
Phone #: _____			Project Manager																												
Attention: _____			PO#																												
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vol #	Collection			Matrix	# of bottles	Number of preserved Bottles							Ni-Cr	SNOCS	Total Metals	TCP/SPLP methods	PH	LAB USE ONLY											
			Date	Time	Sampled by			HCl	NO <sub>2</sub>	INDS	INDS	INDS	INDS	INDS							INDS	INDS	INDS	INDS	INDS						
1	RL1-1(0.5-1.5)-030614		3-6-14	1045	TW	50	3												X	X	X	X	X								
2	RP2-1(0.5-1.5)-030614			1055																											
3	RP2-2(0.5-1.5)-030614			1105																											
4	RC-1(0.5-1.5)-030614			1115																											
5	RC-1(0.5-1.5)-030614			1115																											
6	RC-2(0.5-1.5)-030614			1200																											
7	RL3-1(0.5-1.5)-030614			1210																											
8	VL12-1(0.5-1.5)-030614			1225																											
9	VL12-2(0.5-1.5)-030614			1230																											
10	VL12-3(0.5-1.5)-030614			1240																											
11	VL12-4(0.5-1.5)-030614			1250																											
12	RL5-1(0.5-1.5)-030614		3-6-14	1300	TW	50	3																								
Turnaround Time ( Business days )								Data Deliverable Information								Comments / Special Instructions															
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY			Approved By (Accutest PM): / Date:			<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other				loc 15A, 6P2																	
Emergency & Rush T/A data available VIA Lablink																Commercial "A" = Results Only Commercial "B" = Results + QC Summary															
Sample Custody must be documented below each time samples change possession, including courier delivery.																															
Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:	CHICAGO SC								Received By:															
1 T. Sells	3-6-14/1500	V. Jones	3-6-14 3:04	F. D. O.	3-7-14	2	3-7-14									2															
Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:																								
3		3				4																									
Relinquished by:	Date Time:	Received By:	Date Time:	Custody Seal #	Intact	Not Intact	Preserved where applicable	On Ice	Cooler Temp.																						
5		5							21.3, 1.1, 0.8																						

51 5

MC28738: Chain of Custody

Page 1 of 3

FED-EX Tracking #	Batch Order Control #
Accutest Quote #	Accutest Job # <b>MC28738</b>

Client / Reporting Information			Project Information										Requested Analysis (see TEST CODE sheet)										Matrix Codes										
Company Name <b>Weston Solutions</b>			Project Name <b>IDOT-048 McHenry County</b>										<table border="1"> <tr><td>VOCs</td><td>X</td></tr> <tr><td>SVOCs</td><td>X</td></tr> <tr><td>Total Metals</td><td>X</td></tr> <tr><td>TELD/SPID Metals</td><td>X</td></tr> <tr><td>PH</td><td>X</td></tr> </table>										VOCs	X	SVOCs	X	Total Metals	X	TELD/SPID Metals	X	PH	X	DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
VOCs	X																																
SVOCs	X																																
Total Metals	X																																
TELD/SPID Metals	X																																
PH	X																																
Street Address <b>750 E. Banker Ct Ste 500</b>			Street:																														
City State Zip <b>Vernon Hills IL 60061</b>			Billing Information (if different from Report to)																														
Project Contact <b>S. Babusankaran</b>			Company Name																														
Phone # Fax # <b>817-918-4018 -4055</b>			Street Address																														
Sampler(s) Name(s) <b>T. Walk</b>			City State Zip																														
E-mail <b>817-918-4180</b>			Attention: PO#																														
Project Manager			PO#																														
Actual Sample #	Field ID / Point of Collection	METH/VIAT #	Collection			Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY															
			Date	Time	Sampled by			HCO	INCH	INCH3	PERCH	INONE	DI WHIRL	MECH	ENCORE	Residue																	
13	VL14-1(0.5-1.5)-030614		3-6-14	1310	TW SO	3												X	X	X	X	X											
14	VL14-2(0.5-1.5)-030614			1320																													
15	VL14-3(0.5-1.5)-030614			1325																													
16	VL14-3(0.5-1.5)-030614D			1325																													
17	DT-1(0.5-1.5)-030614			1340																													
18	REA-1(0.5-1.5)-030614			1345																													
19	REA-2(0.5-1.5)-030614		3-6-14	1400	TW SO	3													X	X	X	X											
Turnaround Time (Business days)			Approved By (Accutest PM): / Date:										Data Deliverable Information										Comments / Special Instructions										
<input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink			<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary										<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____																				
Relinquished by Sampler:			Date Time:			Received By:			Relinquished By:			Date Time:			Received By:			<b>CHICAGO SC</b> 															
1 <b>T. Walk</b>			3-6-14/1500			<b>S. Babusankaran 3:04</b>			FEDX			3-7-14 9:30			<b>2 [Signature]</b>																		
3						3			4			4																					
Relinquished by:			Date Time:			Received By:			Custody Seal #			Preserved where applicable			On Ice Cooler Temp.																		
5						5																											

5.1  
5





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

1200 block of Davis Road

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.295369635 Longitude: -88.436012553

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.295369635 Longitude: -88.436012553

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATION VL16-1 WAS SAMPLED ADJACENT TO ISGS SITE No. 2792-81. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28780

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

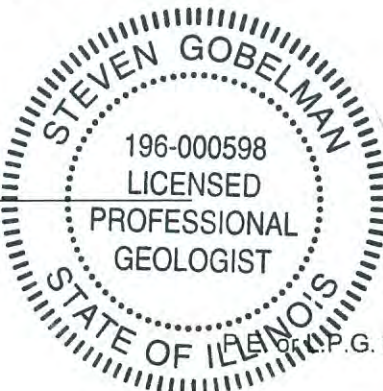
Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

6/2/14  
 Date:



P.G. Seal:

**Summary Table of ISGS Site No. 2792-81**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	VL16-1(0.5-1.5)-030714	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/7/2014	
Location ID	VL16-1	
Depth	0.5 - 1.5	
Parameter		
Laboratory pH	8.3	<6.25,>9.0
<b>VOCs (ug/kg)</b>		
Benzene	1.6	30
Ethylbenzene	0.94 J	13000
Toluene	3.4 J	12000
Xylene (Total)	2.2	5600
<b>SVOCs (ug/kg)</b>		
bis(2-Ethylhexyl)phthalate	85.7 J	46000
<b>Total Metals (mg/kg)</b>		
Arsenic, Total	5.5	11.3 / 13
Barium, Total	19.3	1500
Beryllium, Total	0.16 J	22
Cadmium, Total	0.042 J	5.2
Calcium, Total	89200	---
Chromium, Total	7.3	21
Cobalt, Total	4.1 J	20
Copper, Total	14.7	2900
Iron, Total	11600	15000 / 15900
Lead, Total	11	107
Magnesium, Total	45300	325000
Manganese, Total	298	630 / 636
Mercury, Total	0.01 J	0.89
Nickel, Total	9.7	100
Potassium, Total	555	---
Selenium, Total	0.29 J	1.3
Sodium, Total	534	---
Thallium, Total	0.47 J	2.6
Vanadium, Total	21.5	550
Zinc, Total	33.5	5100
<b>TCLP Metals (mg/l)</b>		
Barium, TCLP	0.23 J	2
Cadmium, TCLP	0.0011 J	0.005
Chromium, TCLP	0.002 J	0.1
Cobalt, TCLP	0.0023 J	1
Copper, TCLP	0.0081 J	0.65
Lead, TCLP	0.003 J	0.0075
Manganese, TCLP	1.3	0.15
Nickel, TCLP	0.017 J	0.1
Zinc, TCLP	0.016 J	5
<b>SPLP Metals (mg/l)</b>		
Arsenic, SPLP	0.0073 J	0.05
Barium, SPLP	0.053 J	2
Beryllium, SPLP	0.0004 J	0.004
Chromium, SPLP	0.013	0.1
Cobalt, SPLP	0.0034 J	1
Copper, SPLP	0.02 J	0.65
Iron, SPLP	13.2	5
Lead, SPLP	0.024	0.0075
Manganese, SPLP	0.19	0.15
Nickel, SPLP	0.011 J	0.1
Zinc, SPLP	0.063 J	5


**Summary Table of ISGS Site No. 2792-81**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

J - Estimated concentration.

 Shaded values indicate concentration **exceeds** Reference Concentration.



03/20/14

Technical Report for

Weston Solutions, Inc.

IDOT 048 - McHenry County, IL

02056.013.048.0020

Accutest Job Number: MC28780

Sampling Date: 03/07/14

Report to:

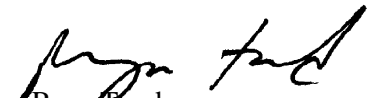
Weston Solutions, Inc.  
750 East Bunker Court Suite 500  
Vernon Hills, IL 60061  
andris.slesers@westonsolutions.com

ATTN: Andris Slesres

Total number of pages in report: **171**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

  
Reza Pand  
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

## Report of Analysis

<b>Client Sample ID:</b>	VL16-1(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-1	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.3
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63899.D	1	03/19/14	KD	n/a	n/a	MSM2241
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	5.37 g	5.0 ml
Run #2		

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.8	2.7	ug/kg	
71-43-2	Benzene	1.6	0.49	0.33	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.20	ug/kg	
75-25-2	Bromoform	ND	2.0	0.35	ug/kg	
74-83-9	Bromomethane	ND	2.0	0.59	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.8	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	4.9	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.9	0.74	ug/kg	
67-66-3	Chloroform	ND	2.0	0.17	ug/kg	
74-87-3	Chloromethane	ND	4.9	0.55	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	0.31	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	0.40	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	0.44	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	0.41	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.41	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.41	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.26	ug/kg	
100-41-4	Ethylbenzene	0.94	2.0	0.67	ug/kg	J
591-78-6	2-Hexanone	ND	9.8	0.74	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	4.9	0.53	ug/kg	
75-09-2	Methylene chloride	1.5	2.0	0.52	ug/kg	JB
100-42-5	Styrene	ND	4.9	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.38	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.31	ug/kg	
108-88-3	Toluene	3.4	4.9	0.20	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.21	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL16-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-1	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.56	ug/kg	
79-01-6	Trichloroethene	ND	2.0	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.89	ug/kg	
1330-20-7	Xylene (total)	2.2	2.0	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	37	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	19	ug/kg	JN
109-66-0	Pentane	6.48	15	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	11	ug/kg	JN
110-54-3	Hexane	8.46	9.2	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	5.7	ug/kg	JN
110-82-7	Cyclohexane	9.92	5.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	8.2	ug/kg	JN
104-76-7	1-Hexanol, 2-ethyl-	15.80	8.7	ug/kg	JN
	Total TIC, Volatile		119	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> VL16-1(0.5-1.5)-030714	
<b>Lab Sample ID:</b> MC28780-1	<b>Date Sampled:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/08/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 95.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18170.D	1	03/13/14	KR	03/10/14	OP37118	MSW795
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.2 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	260	12	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	520	13	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	520	15	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	520	85	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	520	65	ug/kg	
95-48-7	2-Methylphenol	ND	520	21	ug/kg	
106-44-5	4-Methylphenol	ND	520	27	ug/kg	
88-75-5	2-Nitrophenol	ND	520	14	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	98	ug/kg	
87-86-5	Pentachlorophenol	ND	520	37	ug/kg	
108-95-2	Phenol	ND	260	15	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	520	13	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	520	13	ug/kg	
83-32-9	Acenaphthene	ND	100	14	ug/kg	
208-96-8	Acenaphthylene	ND	100	10	ug/kg	
120-12-7	Anthracene	ND	100	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100	13	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100	11	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	13	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	260	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	260	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	260	14	ug/kg	
106-47-8	4-Chloroaniline	ND	520	13	ug/kg	
86-74-8	Carbazole	ND	100	12	ug/kg	
218-01-9	Chrysene	ND	100	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	260	12	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	260	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	260	19	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	260	16	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	VL16-1(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-1	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	260	13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	260	15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	260	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	520	35	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	520	13	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	260	26	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	12	ug/kg	
132-64-9	Dibenzofuran	ND	100	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	260	28	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	260	8.1	ug/kg	
84-66-2	Diethyl phthalate	ND	260	13	ug/kg	
131-11-3	Dimethyl phthalate	ND	260	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	85.7	260	9.6	ug/kg	J
206-44-0	Fluoranthene	ND	100	14	ug/kg	
86-73-7	Fluorene	ND	100	14	ug/kg	
118-74-1	Hexachlorobenzene	ND	260	16	ug/kg	
87-68-3	Hexachlorobutadiene	ND	260	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	520	130	ug/kg	
67-72-1	Hexachloroethane	ND	260	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	11	ug/kg	
78-59-1	Isophorone	ND	260	12	ug/kg	
91-57-6	2-Methylnaphthalene	ND	100	13	ug/kg	
88-74-4	2-Nitroaniline	ND	520	13	ug/kg	
99-09-2	3-Nitroaniline	ND	520	28	ug/kg	
100-01-6	4-Nitroaniline	ND	520	13	ug/kg	
91-20-3	Naphthalene	ND	100	17	ug/kg	
98-95-3	Nitrobenzene	ND	260	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	260	15	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	260	16	ug/kg	
85-01-8	Phenanthrene	ND	100	14	ug/kg	
129-00-0	Pyrene	ND	100	12	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	260	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	91%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> VL16-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-1	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.3
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5400	ug/kg	JN
	Total TIC, Semi-Volatile		5400	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> VL16-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-1	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.84	0.13	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Arsenic	5.5	0.84	0.17	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	19.3	4.2	0.061	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Beryllium	0.16 B	0.34	0.020	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	0.042 B	0.34	0.036	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Calcium	89200	4200	53	mg/kg	10	03/14/14	03/17/14	EAL SW846 6010C <sup>2</sup>	SW846 3050B <sup>4</sup>
Chromium	7.3	0.84	0.080	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Cobalt	4.1 B	4.2	0.039	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Copper	14.7	2.1	0.47	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Iron	11600	8.4	0.73	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	11.0	0.84	0.14	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Magnesium	45300	420	4.3	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Manganese	298	1.3	0.034	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	0.010 B	0.033	0.0072	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>3</sup>	SW846 7471B <sup>5</sup>
Nickel	9.7	3.4	0.037	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Potassium	555	420	7.2	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Selenium	0.29 B	0.84	0.29	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Silver	0.10 U	0.42	0.10	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Sodium	534	420	2.8	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Thallium	0.47 B	0.84	0.11	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Vanadium	21.5	0.84	0.11	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>
Zinc	33.5	1.7	0.14	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16884
- (3) Instrument QC Batch: MA16890
- (4) Prep QC Batch: MP22658
- (5) Prep QC Batch: MP22697

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.1  
 4

## Report of Analysis

<b>Client Sample ID:</b> VL16-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-1	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	95.3		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.3		su	1	03/11/14	MA	SW846 9045D

RL = Reporting Limit

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> VL16-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-1A	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0029 U	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.23 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0011 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0020 B	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0023 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0081 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.020 U			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0030 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.3			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.017 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0048 U	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.016 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit                      MDL = Method Detection Limit                      U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)                      B = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> VL16-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-1B	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 95.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0073 B		0.010	0.0029	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.053 B		0.50	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.00040 B		0.0040	0.00025	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.00050 U		0.0040	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.013		0.010	0.0014	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.0034 B		0.050	0.00040	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.020 B		0.025	0.0070	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Iron	13.2		0.10	0.020	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.024		0.010	0.0017	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Manganese	0.19		0.015	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00010 U		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.011 B		0.040	0.00057	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.063 B		0.10	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.3  
4





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: US 14 FROM IL 47 TO BUNKER HILL RD Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
2000 S. Eastwood Drive

City: Woodstock State: IL Zip Code: \_\_\_\_\_

County: McHenry Township: \_\_\_\_\_

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.295173403 Longitude: -88.434946530  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: \_\_\_\_\_ BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Name: Illinois Department of Transportation  
Street Address: 201 West Center Court  
PO Box: \_\_\_\_\_  
City: Schaumburg State: IL  
Zip Code: 60196-1096 Phone: 847-705-4101  
Contact: Sam Mead  
Email, if available: Sam.Mead@illinois.gov

Site Operator

Name: Illinois Department of Transportation  
Street Address: 201 West Center Court  
PO Box: \_\_\_\_\_  
City: Schaumburg State: IL  
Zip Code: 60196-1096 Phone: 847-705-4101  
Contact: Sam Mead  
Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: US 14 FROM IL 47 TO BUNKER HILL RD

Latitude: 42.295173403 Longitude: -88.434946530

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS CB2-1 AND CB2-2 WERE SAMPLED ADJACENT TO ISGS SITE No. 2792-84. SEE FIGURE 3-15 AND TABLE 4-1 OF THE REVISED PRELIMINARY SITE INVESTIGATION REPORT FOR SAMPLING DETAILS.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

ACCUTEST ANALYTICAL REPORT - JOB ID: MC28780

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman, P.E., L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman, P.E., L.P.G

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

6/2/14

Date:



P.E., L.P.G. Seal:

**Summary Table of ISGS Site No. 2792-84**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	CB2-1(0.5-1.5)-030714	CB2-2(0.5-1.5)-030714	Soil Reference Concentrations <sup>A</sup>
Sample Date	3/7/2014	3/7/2014	
Location ID	CB2-1	CB2-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
Laboratory pH	8.4	8.4	<6.25,>9.0
<b>VOCs (ug/kg)</b>			
Benzene	2.4	2	30
Carbon disulfide	ND	5.7 J	9000
Ethylbenzene	0.97 J	1.2 J	13000
Toluene	4.3 J	4.8 J	12000
Xylene (Total)	2.4 J	2.9	5600
<b>SVOCs (ug/kg)</b>			
Benzo(a)pyrene	35.7 J	ND	90 / 1300 / 2100
Benzo(b)fluoranthene	56.6 J	ND	900 / 1500 / 2100
Benzo(g,h,i)perylene	38.3 J	ND	2300000
bis(2-Ethylhexyl)phthalate	63.3 J	ND	46000
Chrysene	31.2 J	ND	88000
Fluoranthene	41.9 J	29.1 J	3100000
Indeno(1,2,3-cd)pyrene	26.4 J	ND	900 / 900 / 1600
Pyrene	39.5 J	26.5 J	2300000
<b>Total Metals (mg/kg)</b>			
Arsenic, Total	5.9	6.9	11.3 / 13
Barium, Total	62.9	56.5	1500
Beryllium, Total	0.3 J	0.4	22
Cadmium, Total	0.1 J	0.098 J	5.2
Calcium, Total	52500	35400	---
Chromium, Total	13.2	14.5	21
Cobalt, Total	5.7	6.9	20
Copper, Total	14	13.9	2900
Iron, Total	12700	15100	15000 / 15900
Lead, Total	24	17.8	107
Magnesium, Total	28500	20700	325000
Manganese, Total	557	515	630 / 636
Mercury, Total	0.018 J	0.02 J	0.89
Nickel, Total	12.2	16.2	100
Potassium, Total	633	766	---
Silver, Total	ND	0.13 J	4.4
Sodium, Total	1500	1500	---
Thallium, Total	0.32 J	0.23 J	2.6
Vanadium, Total	23.8	26.6	550
Zinc, Total	42.5	41.2	5100
<b>TCLP Metals (mg/l)</b>			
Arsenic, TCLP	0.0034 J	0.0035 J	0.05
Barium, TCLP	0.43 J	0.43 J	2
Cadmium, TCLP	0.001 J	0.0022 J	0.005
Cobalt, TCLP	ND	0.0024 J	1
Copper, TCLP	0.0086 J	0.0097 J	0.65
Iron, TCLP	0.037 J	0.023 J	5
Lead, TCLP	ND	0.0035 J	0.0075
Manganese, TCLP	1.1	2.2	0.15
Nickel, TCLP	0.0092 J	0.024 J	0.1
Selenium, TCLP	0.0075 J	0.0062 J	0.05
Zinc, TCLP	0.018 J	0.021 J	5

**Summary Table of ISGS Site No. 2792-84**  
**Comparison of Detected Constituents to Applicable Reference Concentrations**  
**Soil Analytical Results**  
**Illinois Department of Transportation**  
**FAP 305: US Route 14 from Illinois 47 to Bunker Hill Road**  
**McHenry County, Illinois**

Field Sample ID	CB2-1(0.5-1.5)-030714	CB2-2(0.5-1.5)-030714	<b>Soil Reference Concentrations<sup>A</sup></b>
Sample Date	3/7/2014	3/7/2014	
Location ID	CB2-1	CB2-2	
Depth	0.5 - 1.5	0.5 - 1.5	
Parameter			
<b>SPLP Metals (mg/l)</b>			
Arsenic, SPLP	0.029	0.083	0.05
Barium, SPLP	0.33 J	0.58	2
Beryllium, SPLP	0.0025 J	0.0067	0.004
Cadmium, SPLP	0.001 J	0.0019 J	0.005
Chromium, SPLP	0.081	0.2	0.1
Cobalt, SPLP	0.02 J	0.057	1
Copper, SPLP	0.077	0.22	0.65
Iron, SPLP	76.9	216	5
Lead, SPLP	0.14	0.27	0.0075
Manganese, SPLP	1.3	2.1	0.15
Mercury, SPLP	0.00019 J	0.00058	0.002
Nickel, SPLP	0.065	0.2	0.1
Zinc, SPLP	0.3 J	0.66 J	5

**Notes:**

--- - not applicable or value not available.

<sup>A</sup> - Soil reference concentrations from MAC Table. Background values for Chicago corporate limits and MSA counties are included, as applicable.

ND - Constituent not detected above the reporting limit.

J - Estimated concentration.

Shaded values indicate concentration **exceeds** Reference Concentration.

## Technical Report for

**Weston Solutions, Inc.**

**IDOT 048 - McHenry County, IL**

**02056.013.048.0020**

**Accutest Job Number: MC28780**

**Sampling Date: 03/07/14**

### Report to:

**Weston Solutions, Inc.**  
**750 East Bunker Court Suite 500**  
**Vernon Hills, IL 60061**  
**andris.slesers@westonsolutions.com**

**ATTN: Andris Slesres**

**Total number of pages in report: 171**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



**Reza Fand**  
**Lab Director**

**Client Service contact: Matthew Morrell 508-481-6200**

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220)  
DoD ELAP (L-A-B L2235)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.



## Report of Analysis

<b>Client Sample ID:</b> CB2-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-2	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.3
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**VOSL**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.72	ug/kg	
79-01-6	Trichloroethene	ND	2.5	0.31	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	1.1	ug/kg	
1330-20-7	Xylene (total)	2.4	2.5	0.28	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	85%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
75-28-5	Isobutane	4.78	69	ug/kg	JN
106-97-8	Butane	5.10	51	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.09	26	ug/kg	JN
109-66-0	Pentane	6.49	25	ug/kg	JN
107-83-5	Pentane, 2-methyl-	7.83	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7.9	ug/kg	JN
110-54-3	Hexane	8.46	17	ug/kg	JN
96-37-7	Cyclopentane, methyl-	9.17	8.2	ug/kg	JN
110-82-7	Cyclohexane	9.91	7.3	ug/kg	JN
142-82-5	Heptane	10.51	8.2	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	10	ug/kg	JN
	Total TIC, Volatile		244.6	ug/kg	J

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.4  
4



## Report of Analysis

<b>Client Sample ID:</b>	CB2-1(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-2	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.3
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	38	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.8	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	63.3	280	10	ug/kg	J
206-44-0	Fluoranthene	41.9	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	18	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	14	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	26.4	110	12	ug/kg	J
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	31	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	39.5	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	68%		30-130%
118-79-6	2,4,6-Tribromophenol	94%		30-130%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> CB2-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-2	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.3
<b>Method:</b> SW846 8270D SW846 3546	
<b>Project:</b> IDOT 048 - McHenry County, IL	

**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	89%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5500	ug/kg	JN
	Total TIC, Semi-Volatile		5500	ug/kg	J

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.4  
4

# Report of Analysis

<b>Client Sample ID:</b> CB2-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-2	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.3
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.14 U	0.94	0.14	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	5.9	0.94	0.19	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	62.9	4.7	0.068	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.30 B	0.37	0.022	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.10 B	0.37	0.040	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	52500	470	5.9	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	13.2	0.94	0.089	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.7	4.7	0.044	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	14.0	2.3	0.52	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	12700	9.4	0.81	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	24.0	0.94	0.16	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	28500	470	4.8	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	557	1.4	0.037	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.018 B	0.034	0.0074	mg/kg	1	03/19/14	03/19/14	SA SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	12.2	3.7	0.041	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	633	470	8.0	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.32 U	0.94	0.32	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.12 U	0.47	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1500	470	3.1	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.32 B	0.94	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	23.8	0.94	0.12	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	42.5	1.9	0.15	mg/kg	1	03/14/14	03/15/14	EAL SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16890
- (3) Prep QC Batch: MP22658
- (4) Prep QC Batch: MP22697

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.4  
 4

## Report of Analysis

<b>Client Sample ID:</b> CB2-1(0.5-1.5)-030714		<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-2		<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 88.3
<b>Project:</b> IDOT 048 - McHenry County, IL		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.3		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> CB2-1(0.5-1.5)-030714 <b>Lab Sample ID:</b> MC28780-2A <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/07/14 <b>Date Received:</b> 03/08/14 <b>Percent Solids:</b> n/a
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**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0034 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.43 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0010 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.00040 U			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0086 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.037 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0017 U	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	1.1			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.0092 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0075 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.018 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)    B = Indicates a result > = MDL but < RL

4.5  
4

## Report of Analysis

<b>Client Sample ID:</b> CB2-1(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-2B	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> n/a
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.029		0.010	0.0029	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.33 B		0.50	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0025 B		0.0040	0.00025	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0010 B		0.0040	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.081		0.010	0.0014	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.020 B		0.050	0.00040	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.077		0.025	0.0070	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Iron	76.9		0.10	0.020	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.14		0.010	0.0017	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Manganese	1.3		0.015	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00019 B		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.065		0.040	0.00057	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.30		0.10	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	
<b>Lab Sample ID:</b> MC28780-3	<b>Date Sampled:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/08/14
<b>Method:</b> SW846 8260C	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M63901.D	1	03/19/14	KD	n/a	n/a	MSM2241
Run #2							

Run #	Initial Weight	Final Volume
Run #1	4.00 g	5.0 ml
Run #2		

### VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	4.0	ug/kg	
71-43-2	Benzene	2.0	0.71	0.48	ug/kg	
75-27-4	Bromodichloromethane	ND	2.8	0.30	ug/kg	
75-25-2	Bromoform	ND	2.8	0.50	ug/kg	
74-83-9	Bromomethane	ND	2.8	0.85	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	4.4	ug/kg	
75-15-0	Carbon disulfide	5.7	7.1	0.19	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.8	0.31	ug/kg	
108-90-7	Chlorobenzene	ND	2.8	0.22	ug/kg	
75-00-3	Chloroethane	ND	7.1	1.1	ug/kg	
67-66-3	Chloroform	ND	2.8	0.24	ug/kg	
74-87-3	Chloromethane	ND	7.1	0.80	ug/kg	
124-48-1	Dibromochloromethane	ND	2.8	0.46	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.8	0.38	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.8	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.8	0.59	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.8	0.64	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.8	0.59	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	2.8	0.59	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.8	0.60	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.8	0.32	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	0.37	ug/kg	
100-41-4	Ethylbenzene	1.2	2.8	0.98	ug/kg	J
591-78-6	2-Hexanone	ND	14	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.8	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	7.1	0.77	ug/kg	
75-09-2	Methylene chloride	2.2	2.8	0.75	ug/kg	JB
100-42-5	Styrene	ND	7.1	0.24	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.8	0.56	ug/kg	
127-18-4	Tetrachloroethene	ND	2.8	0.44	ug/kg	
108-88-3	Toluene	4.8	7.1	0.29	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	2.8	0.31	ug/kg	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
**4**

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Method:</b> SW846 8260C	
<b>Project:</b> IDOT 048 - McHenry County, IL	

## VOSL

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	2.8	0.81	ug/kg	
79-01-6	Trichloroethene	ND	2.8	0.35	ug/kg	
75-01-4	Vinyl chloride	ND	2.8	1.3	ug/kg	
1330-20-7	Xylene (total)	2.9	2.8	0.31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	86%		70-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
106-97-8	Butane	5.09	54	ug/kg	JN
78-78-4	Butane, 2-methyl-	6.07	26	ug/kg	JN
109-66-0	Pentane	6.48	23	ug/kg	JN
	Unknown	7.83	15	ug/kg	JN
96-14-0	Pentane, 3-methyl-	8.14	7.7	ug/kg	JN
110-54-3	Hexane	8.46	15	ug/kg	JN
110-82-7	Cyclohexane	9.91	8.1	ug/kg	JN
142-82-5	Heptane	10.51	7.6	ug/kg	JN
108-87-2	Cyclohexane, methyl-	11.18	12	ug/kg	JN
103-65-1	Benzene, propyl-	15.14	11	ug/kg	JN
620-14-4	Benzene, 1-ethyl-3-methyl-	15.24	35	ug/kg	JN
526-73-8	Benzene, 1,2,3-trimethyl-	15.41	34	ug/kg	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	15.81	71	ug/kg	JN
	Total TIC, Volatile		319.4	ug/kg	J

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	
<b>Lab Sample ID:</b> MC28780-3	<b>Date Sampled:</b> 03/07/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/08/14
<b>Method:</b> SW846 8270D SW846 3546	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W18172.D	1	03/13/14	KR	03/10/14	OP37118	MSW795
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	280	13	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	560	14	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	560	16	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	560	91	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	560	69	ug/kg	
95-48-7	2-Methylphenol	ND	560	22	ug/kg	
106-44-5	4-Methylphenol	ND	560	28	ug/kg	
88-75-5	2-Nitrophenol	ND	560	15	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	100	ug/kg	
87-86-5	Pentachlorophenol	ND	560	39	ug/kg	
108-95-2	Phenol	ND	280	16	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	560	14	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	560	14	ug/kg	
83-32-9	Acenaphthene	ND	110	15	ug/kg	
208-96-8	Acenaphthylene	ND	110	11	ug/kg	
120-12-7	Anthracene	ND	110	13	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	14	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	12	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	14	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	280	14	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	280	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	280	15	ug/kg	
106-47-8	4-Chloroaniline	ND	560	14	ug/kg	
86-74-8	Carbazole	ND	110	13	ug/kg	
218-01-9	Chrysene	ND	110	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	280	13	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	280	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	280	20	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	280	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b>	03/07/14
<b>Lab Sample ID:</b>	MC28780-3	<b>Date Received:</b>	03/08/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	IDOT 048 - McHenry County, IL		

## ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	280	14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	280	16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	280	15	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	560	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	560	14	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	280	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	13	ug/kg	
132-64-9	Dibenzofuran	ND	110	15	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	280	29	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	280	8.7	ug/kg	
84-66-2	Diethyl phthalate	ND	280	14	ug/kg	
131-11-3	Dimethyl phthalate	ND	280	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	280	10	ug/kg	
206-44-0	Fluoranthene	29.1	110	15	ug/kg	J
86-73-7	Fluorene	ND	110	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	280	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	280	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	560	140	ug/kg	
67-72-1	Hexachloroethane	ND	280	13	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	12	ug/kg	
78-59-1	Isophorone	ND	280	13	ug/kg	
91-57-6	2-Methylnaphthalene	ND	110	14	ug/kg	
88-74-4	2-Nitroaniline	ND	560	14	ug/kg	
99-09-2	3-Nitroaniline	ND	560	30	ug/kg	
100-01-6	4-Nitroaniline	ND	560	14	ug/kg	
91-20-3	Naphthalene	ND	110	18	ug/kg	
98-95-3	Nitrobenzene	ND	280	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	280	16	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	280	17	ug/kg	
85-01-8	Phenanthrene	ND	110	15	ug/kg	
129-00-0	Pyrene	26.5	110	13	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	280	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		30-130%
4165-62-2	Phenol-d5	70%		30-130%
118-79-6	2,4,6-Tribromophenol	94%		30-130%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714 <b>Lab Sample ID:</b> MC28780-3 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3546 <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/07/14 <b>Date Received:</b> 03/08/14 <b>Percent Solids:</b> 88.1
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**ABN Special List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	93%		30-130%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
98-82-8	Benzene, (1-methylethyl)-	3.63	5500	ug/kg	JN
	Total TIC, Semi-Volatile		5500	ug/kg	J

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
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# Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

## Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	0.13 U	0.89	0.13	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Arsenic	6.9	0.89	0.19	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Barium	56.5	4.5	0.065	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.40	0.36	0.021	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.098 B	0.36	0.038	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Calcium	35400	450	5.6	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Chromium	14.5	0.89	0.085	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.9	4.5	0.042	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Copper	13.9	2.2	0.50	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Iron	15100	8.9	0.78	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Lead	17.8	0.89	0.15	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Magnesium	20700	450	4.6	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Manganese	515	1.3	0.036	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Mercury	0.020 B	0.035	0.0078	mg/kg	1	03/19/14	03/19/14 SA	SW846 7471B <sup>2</sup>	SW846 7471B <sup>4</sup>
Nickel	16.2	3.6	0.039	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Potassium	766	450	7.7	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Selenium	0.31 U	0.89	0.31	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Silver	0.13 B	0.45	0.11	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Sodium	1500	450	3.0	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Thallium	0.23 B	0.89	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Vanadium	26.6	0.89	0.12	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>
Zinc	41.2	1.8	0.14	mg/kg	1	03/14/14	03/15/14 EAL	SW846 6010C <sup>1</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA16874
- (2) Instrument QC Batch: MA16890
- (3) Prep QC Batch: MP22658
- (4) Prep QC Batch: MP22697

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
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## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714 <b>Lab Sample ID:</b> MC28780-3 <b>Matrix:</b> SO - Soil <b>Project:</b> IDOT 048 - McHenry County, IL	<b>Date Sampled:</b> 03/07/14 <b>Date Received:</b> 03/08/14 <b>Percent Solids:</b> 88.1
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### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	88.1		%	1	03/13/14	CF	SM21 2540 B MOD.
pH	8.4		su	1	03/11/14	MA	SW846 9045D

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RL = Reporting Limit

4.7  
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# Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3A	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.0035 B	D004	5.0	0.010	0.0029	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Barium	0.43 B	D005	100	0.50	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Beryllium	0.00025 U			0.0040	0.00025	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cadmium	0.0022 B	D006	1.0	0.0040	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Chromium	0.0014 U	D007	5.0	0.010	0.0014	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Cobalt	0.0024 B			0.050	0.00040	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Copper	0.0097 B			0.025	0.0070	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Iron	0.023 B			0.10	0.020	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Lead	0.0035 B	D008	5.0	0.010	0.0017	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Manganese	2.2			0.015	0.00081	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	03/18/14	03/18/14	SA SW846 7470A <sup>1</sup>
Nickel	0.024 B			0.040	0.00057	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Selenium	0.0062 B	D010	1.0	0.025	0.0048	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Silver	0.0010 U	D011	5.0	0.0050	0.0010	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>
Zinc	0.021 B			0.10	0.00050	mg/l	1	03/17/14	03/18/14	EAL SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16870
- (2) Instrument QC Batch: MA16891
- (3) Prep QC Batch: MP22678
- (4) Prep QC Batch: MP22683

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL  
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

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## Report of Analysis

<b>Client Sample ID:</b> CB2-2(0.5-1.5)-030714	<b>Date Sampled:</b> 03/07/14
<b>Lab Sample ID:</b> MC28780-3B	<b>Date Received:</b> 03/08/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.1
<b>Project:</b> IDOT 048 - McHenry County, IL	

**Metals Analysis, SPLP Leachate SW846 1312**

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed By	Method
Arsenic	0.083		0.010	0.0029	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Barium	0.58		0.50	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Beryllium	0.0067		0.0040	0.00025	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cadmium	0.0019 B		0.0040	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Chromium	0.20		0.010	0.0014	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Cobalt	0.057		0.050	0.00040	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Copper	0.22		0.025	0.0070	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Iron	216		0.10	0.020	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Lead	0.27		0.010	0.0017	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Manganese	2.1		0.015	0.00081	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Mercury	0.00058		0.00020	0.00010	mg/l	1	03/17/14	03/18/14 SA	SW846 7470A <sup>1</sup>
Nickel	0.20		0.040	0.00057	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Selenium	0.0048 U		0.025	0.0048	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Silver	0.0010 U		0.0050	0.0010	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>
Zinc	0.66		0.10	0.00050	mg/l	1	03/17/14	03/19/14 EAL	SW846 6010C <sup>2</sup>

- (1) Instrument QC Batch: MA16868
- (2) Instrument QC Batch: MA16892
- (3) Prep QC Batch: MP22677
- (4) Prep QC Batch: MP22680

RL = Reporting Limit                      MDL = Method Detection Limit    U = Indicates a result < MDL  
 MCL = Maximum Contamination Level (not available)    B = Indicates a result > = MDL but < RL

4.9  
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