



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: FAP 344 (IL 83) Office Phone Number, if available: _____

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

7900 Block of South Kingery Highway (IL 83)

City: Willowbrook State: IL Zip Code: 60527

County: DuPage Township: Downers Grove

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

Latitude: 41.74497 Longitude: -87.94448
(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: 0431103001 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: FAP 344 (IL 83)

Latitude: 41.74497 Longitude: -87.94448

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 2760-55-B01 AND 2760-55-B02 WERE SAMPLED ADJACENT TO SITE No. 2760-55. SEE FIGURE 3 AND TABLE 3a OF THE REVISED PRELIMINARY SITE INVESTIGATION

- 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]:

TESTAMERICA ANALYTICAL REPORT - TESTAMERICA JOB ID: 500-71549-1

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

I, Steven Gobelman (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, Bureau of Design and Environment

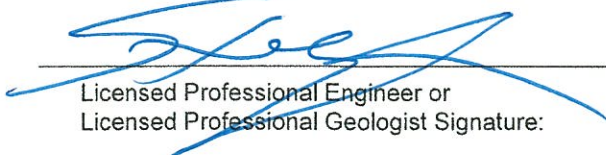
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

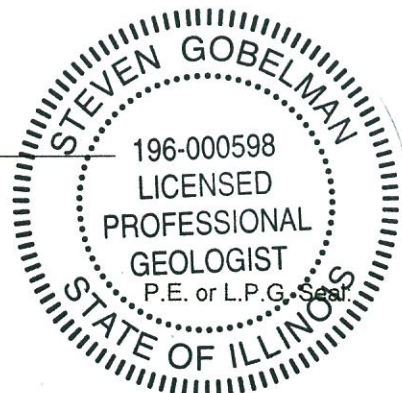
Phone: 217-785-4246

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

Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

6/30/14
 Date:



THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Volatile Organic Compounds (mg/kg)
1,1,1-Trichloroethane
1,1,1,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2-Butanone (MEK)
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether (MTBE)
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl Acetate
Vinyl Chloride
Xylenes, total
m-Xylene
o-Xylene
p-Xylene
Semivolatile Organic Compounds (mg/kg)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Semivolatile Organic Compounds (mg/kg) (cont.)
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate
Carbazole
Chrysene
Dibenzo (a,h) anthracene
Dibenzofuran
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Inorganic Compounds, Total (mg/kg)
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
TCLP/SPLP Inorganics (mg/L)
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.
- Samples with the notation “**No Contaminants of Concern Noted**” were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

ISGS Site 2760-55

State ROW

Sample ID	2760-55-B01	2760-55-B01 DUP	2760-55-B02	¹ Most Stringent MAC	² Outside a Populated Area MAC	³ Populated non- Metropolitan Statistical Area MAC	⁴ Within Chicago Corporate Limits MAC	⁵ Metropolitan Statistical Area MAC	⁶ Class I Soil TCLP/SPLP Comparisons Only	
Sample Depth (ft)	0-5	0-5	0-5							
Sample Date	2/13/2014	2/13/2014	2/13/2014							
PID	0	0	0							
Sample pH	8.01	8.23	8.09							
Matrix	Soil	Soil	Soil							
Inorganic Compounds, Total (mg/kg)										
Arsenic	13	1,3	9.9	8.8	11.3	NA	11.3	NA	13	NA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-71549-1

Client Project/Site: IDOT - Willowbrook I83 - WO 058

For:

Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Attn: Mike Nelson



Authorized for release by:
2/25/2014 3:43:41 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B01

Lab Sample ID: 500-71549-1

Date Collected: 02/13/14 10:45

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0059		0.0046	0.0020	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Benzene	<0.0046		0.0046	0.00064	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Bromodichloromethane	<0.0046		0.0046	0.00080	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Bromoform	<0.0046		0.0046	0.0011	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Bromomethane	<0.0046		0.0046	0.0014	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
2-Butanone (MEK)	<0.0046		0.0046	0.0017	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Carbon disulfide	<0.0046		0.0046	0.00069	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Carbon tetrachloride	<0.0046		0.0046	0.00085	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Chlorobenzene	<0.0046		0.0046	0.00047	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Chloroethane	<0.0046		0.0046	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Chloroform	<0.0046		0.0046	0.00053	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Chloromethane	<0.0046		0.0046	0.00098	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
cis-1,2-Dichloroethene	<0.0046		0.0046	0.00066	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
cis-1,3-Dichloropropene	<0.0046		0.0046	0.00061	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Dibromochloromethane	<0.0046		0.0046	0.00081	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
1,1-Dichloroethane	<0.0046		0.0046	0.00073	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
1,2-Dichloroethane	<0.0046		0.0046	0.00069	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
1,1,1-Dichloroethane	<0.0046		0.0046	0.00075	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
1,2-Dichloropropane	<0.0046		0.0046	0.00070	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
1,3-Dichloropropene, Total	<0.0046		0.0046	0.00061	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Ethylbenzene	<0.0046		0.0046	0.00094	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
2-Hexanone	<0.0046		0.0046	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Methylene Chloride	<0.0046		0.0046	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0012	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Methyl tert-butyl ether	<0.0046		0.0046	0.00077	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Styrene	<0.0046		0.0046	0.00061	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
1,1,1,2-Tetrachloroethane	<0.0046		0.0046	0.00094	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Tetrachloroethene	<0.0046		0.0046	0.00071	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Toluene	<0.0046		0.0046	0.00065	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
trans-1,2-Dichloroethene	<0.0046		0.0046	0.00064	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
trans-1,3-Dichloropropene	<0.0046		0.0046	0.00083	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
1,1,1-Trichloroethane	<0.0046		0.0046	0.00069	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
1,1,1,2-Trichloroethane	<0.0046		0.0046	0.00063	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Trichloroethene	<0.0046		0.0046	0.00077	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Vinyl acetate	<0.0046		0.0046	0.00073	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Vinyl chloride	<0.0046		0.0046	0.00098	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1
Xylenes, Total	<0.0093		0.0093	0.00042	mg/Kg	☼	02/13/14 16:00	02/19/14 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	02/13/14 16:00	02/19/14 18:15	1
Dibromofluoromethane	104		75 - 120	02/13/14 16:00	02/19/14 18:15	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	02/13/14 16:00	02/19/14 18:15	1
Toluene-d8 (Surr)	100		75 - 122	02/13/14 16:00	02/19/14 18:15	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.086	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B01

Lab Sample ID: 500-71549-1

Date Collected: 02/13/14 10:45

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.047	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2-Methylnaphthalene	<0.039		0.039	0.0071	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Dibenzofuran	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
N-Nitrosodiphenylamine	<0.20	*	0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.31	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B01

Lab Sample ID: 500-71549-1

Date Collected: 02/13/14 10:45

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/17/14 07:13	02/18/14 13:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	52		25 - 110	02/17/14 07:13	02/18/14 13:03	1
Phenol-d5	54		31 - 110	02/17/14 07:13	02/18/14 13:03	1
Nitrobenzene-d5	52		25 - 115	02/17/14 07:13	02/18/14 13:03	1
2-Fluorobiphenyl	39		25 - 119	02/17/14 07:13	02/18/14 13:03	1
2,4,6-Tribromophenol	37		35 - 137	02/17/14 07:13	02/18/14 13:03	1
Terphenyl-d14	44		36 - 134	02/17/14 07:13	02/18/14 13:03	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.80	J	1.2	0.47	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Arsenic	13		0.59	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Barium	40		0.59	0.063	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Beryllium	0.78		0.23	0.047	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Boron	11		2.9	0.59	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Cadmium	0.26	B	0.12	0.015	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Calcium	23000		12	3.2	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Chromium	17		0.59	0.068	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Cobalt	21		0.29	0.059	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Copper	38		0.59	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Iron	25000		12	4.8	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Lead	25		0.29	0.087	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Magnesium	16000		5.9	1.2	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Manganese	570		0.59	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Nickel	49		0.59	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Potassium	2400		29	1.8	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Selenium	<0.59		0.59	0.21	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Silver	<0.29		0.29	0.021	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Sodium	860		59	7.9	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Thallium	0.96		0.59	0.25	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Vanadium	21		0.29	0.043	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1
Zinc	76	B	1.2	0.24	mg/Kg	☼	02/21/14 09:30	02/21/14 18:07	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.076	J B	0.10	0.050	mg/L		02/24/14 08:00	02/24/14 20:22	1
Iron	<0.20		0.20	0.20	mg/L		02/24/14 08:00	02/24/14 20:22	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/24/14 08:00	02/24/14 20:22	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
 Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B01

Lab Sample ID: 500-71549-1

Date Collected: 02/13/14 10:45

Matrix: Solid

Date Received: 02/13/14 14:45

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.4		0.025	0.010	mg/L		02/24/14 08:00	02/24/14 20:22	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.46	J	0.50	0.050	mg/L		02/17/14 08:30	02/17/14 17:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/17/14 08:30	02/17/14 17:38	1
Boron	2.1	B	0.10	0.050	mg/L		02/17/14 08:30	02/17/14 17:38	1
Cadmium	0.0021	J	0.0050	0.0020	mg/L		02/17/14 08:30	02/17/14 17:38	1
Chromium	0.076		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:38	1
Cobalt	0.019	J	0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:38	1
Iron	68		0.20	0.20	mg/L		02/17/14 08:30	02/17/14 17:38	1
Lead	0.062		0.0075	0.0075	mg/L		02/17/14 08:30	02/17/14 17:38	1
Manganese	0.63		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:38	1
Nickel	0.076		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:38	1
Selenium	<0.050		0.050	0.010	mg/L		02/17/14 08:30	02/17/14 17:38	1
Silver	<0.025		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:38	1
Zinc	0.43	B	0.10	0.020	mg/L		02/17/14 08:30	02/17/14 17:38	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		02/24/14 08:00	02/24/14 17:58	1

Method: 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/17/14 08:30	02/18/14 12:12	1
Thallium	0.0023		0.0020	0.0020	mg/L		02/17/14 08:30	02/18/14 12:12	1

Method: 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000090	J	0.00020	0.000020	mg/L		02/17/14 16:30	02/18/14 10:19	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.020	0.0077	mg/Kg	☼	02/14/14 13:39	02/17/14 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.01		0.200	0.200	SU			02/24/14 15:07	1

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B01 DUP

Lab Sample ID: 500-71549-2

Date Collected: 02/13/14 10:50

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0086		0.0047	0.0020	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Benzene	<0.0047		0.0047	0.00065	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Bromodichloromethane	<0.0047		0.0047	0.00081	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Bromoform	<0.0047		0.0047	0.0011	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Bromomethane	<0.0047		0.0047	0.0014	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
2-Butanone (MEK)	<0.0047		0.0047	0.0017	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Carbon disulfide	<0.0047		0.0047	0.00071	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Carbon tetrachloride	<0.0047		0.0047	0.00086	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Chlorobenzene	<0.0047		0.0047	0.00048	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Chloroethane	<0.0047		0.0047	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Chloroform	<0.0047		0.0047	0.00054	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Chloromethane	<0.0047		0.0047	0.00099	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
cis-1,2-Dichloroethene	<0.0047		0.0047	0.00067	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
cis-1,3-Dichloropropene	<0.0047		0.0047	0.00062	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Dibromochloromethane	<0.0047		0.0047	0.00082	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
1,1-Dichloroethane	<0.0047		0.0047	0.00075	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
1,2-Dichloroethane	<0.0047		0.0047	0.00070	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.00076	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
1,2-Dichloropropane	<0.0047		0.0047	0.00072	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
1,3-Dichloropropene, Total	<0.0047		0.0047	0.00062	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Ethylbenzene	<0.0047		0.0047	0.00096	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
2-Hexanone	<0.0047		0.0047	0.0014	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Methylene Chloride	<0.0047		0.0047	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0012	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Methyl tert-butyl ether	<0.0047		0.0047	0.00078	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Styrene	<0.0047		0.0047	0.00062	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
1,1,1,2-Tetrachloroethane	<0.0047		0.0047	0.00096	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Tetrachloroethene	<0.0047		0.0047	0.00072	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Toluene	<0.0047		0.0047	0.00066	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
trans-1,2-Dichloroethene	<0.0047		0.0047	0.00065	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
trans-1,3-Dichloropropene	<0.0047		0.0047	0.00085	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
1,1,1-Trichloroethane	<0.0047		0.0047	0.00071	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
1,1,2-Trichloroethane	<0.0047		0.0047	0.00064	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Trichloroethene	<0.0047		0.0047	0.00078	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Vinyl acetate	<0.0047		0.0047	0.00074	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Vinyl chloride	<0.0047		0.0047	0.00099	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1
Xylenes, Total	<0.0095		0.0095	0.00043	mg/Kg	☼	02/13/14 16:00	02/19/14 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/13/14 16:00	02/19/14 18:38	1
Dibromofluoromethane	106		75 - 120	02/13/14 16:00	02/19/14 18:38	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	02/13/14 16:00	02/19/14 18:38	1
Toluene-d8 (Surr)	102		75 - 122	02/13/14 16:00	02/19/14 18:38	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.086	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
 Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B01 DUP

Lab Sample ID: 500-71549-2

Date Collected: 02/13/14 10:50

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.048	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2-Methylnaphthalene	<0.039		0.039	0.0071	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
N-Nitrosodiphenylamine	<0.20	*	0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.31	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B01 DUP

Lab Sample ID: 500-71549-2

Date Collected: 02/13/14 10:50

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/17/14 07:13	02/18/14 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	59		25 - 110	02/17/14 07:13	02/18/14 13:23	1
Phenol-d5	59		31 - 110	02/17/14 07:13	02/18/14 13:23	1
Nitrobenzene-d5	50		25 - 115	02/17/14 07:13	02/18/14 13:23	1
2-Fluorobiphenyl	60		25 - 119	02/17/14 07:13	02/18/14 13:23	1
2,4,6-Tribromophenol	45		35 - 137	02/17/14 07:13	02/18/14 13:23	1
Terphenyl-d14	50		36 - 134	02/17/14 07:13	02/18/14 13:23	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.46	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Arsenic	9.9		0.57	0.11	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Barium	45		0.57	0.061	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Beryllium	0.75		0.23	0.046	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Boron	12		2.9	0.57	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Cadmium	0.23	B	0.11	0.015	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Calcium	28000		11	3.1	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Chromium	18		0.57	0.066	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Cobalt	15		0.29	0.057	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Copper	31		0.57	0.11	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Iron	22000		11	4.7	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Lead	26		0.29	0.085	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Magnesium	21000		5.7	1.2	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Manganese	450		0.57	0.11	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Nickel	40		0.57	0.11	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Potassium	2800		29	1.7	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Selenium	<0.57		0.57	0.20	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Silver	<0.29		0.29	0.021	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Sodium	1600		57	7.7	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Thallium	0.57		0.57	0.24	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Vanadium	22		0.29	0.042	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1
Zinc	67	B	1.1	0.23	mg/Kg	☼	02/21/14 09:30	02/21/14 18:38	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/24/14 08:00	02/24/14 20:42	1
Iron	<0.20		0.20	0.20	mg/L		02/24/14 08:00	02/24/14 20:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		02/24/14 08:00	02/24/14 20:42	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B01 DUP

Lab Sample ID: 500-71549-2

Date Collected: 02/13/14 10:50

Matrix: Solid

Date Received: 02/13/14 14:45

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	6.1		0.025	0.010	mg/L		02/24/14 08:00	02/24/14 20:42	1
Nickel	0.020	J	0.025	0.010	mg/L		02/24/14 08:00	02/24/14 20:42	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.46	J	0.50	0.050	mg/L		02/17/14 08:30	02/17/14 17:42	1
Beryllium	0.0046		0.0040	0.0040	mg/L		02/17/14 08:30	02/17/14 17:42	1
Boron	1.9	B	0.10	0.050	mg/L		02/17/14 08:30	02/17/14 17:42	1
Cadmium	0.0022	J	0.0050	0.0020	mg/L		02/17/14 08:30	02/17/14 17:42	1
Chromium	0.093		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:42	1
Cobalt	0.027		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:42	1
Iron	90		0.20	0.20	mg/L		02/17/14 08:30	02/17/14 17:42	1
Lead	0.076		0.0075	0.0075	mg/L		02/17/14 08:30	02/17/14 17:42	1
Manganese	0.48		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:42	1
Nickel	0.12		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:42	1
Selenium	<0.050		0.050	0.010	mg/L		02/17/14 08:30	02/17/14 17:42	1
Silver	<0.025		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:42	1
Zinc	0.51	B	0.10	0.020	mg/L		02/17/14 08:30	02/17/14 17:42	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		02/24/14 08:00	02/24/14 18:18	1

Method: 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/17/14 08:30	02/18/14 12:15	1
Thallium	0.0029		0.0020	0.0020	mg/L		02/17/14 08:30	02/18/14 12:15	1

Method: 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00018	J	0.00020	0.000020	mg/L		02/17/14 16:30	02/18/14 10:21	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.035		0.019	0.0074	mg/Kg	☼	02/14/14 13:39	02/17/14 10:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.23		0.200	0.200	SU			02/24/14 15:09	1

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B02

Lab Sample ID: 500-71549-3

Date Collected: 02/13/14 09:35

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 81.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0066		0.0049	0.0021	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Benzene	<0.0049		0.0049	0.00067	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Bromodichloromethane	<0.0049		0.0049	0.00084	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Bromoform	<0.0049		0.0049	0.0011	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Bromomethane	<0.0049		0.0049	0.0015	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
2-Butanone (MEK)	<0.0049		0.0049	0.0018	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Carbon disulfide	<0.0049		0.0049	0.00073	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Carbon tetrachloride	<0.0049		0.0049	0.00089	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Chlorobenzene	<0.0049		0.0049	0.00049	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Chloroethane	<0.0049		0.0049	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Chloroform	<0.0049		0.0049	0.00056	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Chloromethane	<0.0049		0.0049	0.0010	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.00069	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.00064	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Dibromochloromethane	<0.0049		0.0049	0.00085	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
1,1-Dichloroethane	<0.0049		0.0049	0.00077	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
1,1,1-Dichloroethane	<0.0049		0.0049	0.00079	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
1,2-Dichloropropane	<0.0049		0.0049	0.00074	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
1,3-Dichloropropene, Total	<0.0049		0.0049	0.00064	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Ethylbenzene	<0.0049		0.0049	0.00099	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
2-Hexanone	<0.0049		0.0049	0.0014	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Methylene Chloride	<0.0049		0.0049	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Methyl tert-butyl ether	<0.0049		0.0049	0.00081	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Styrene	<0.0049		0.0049	0.00064	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
1,1,1,2-Tetrachloroethane	<0.0049		0.0049	0.00099	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Tetrachloroethene	<0.0049		0.0049	0.00075	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Toluene	<0.0049		0.0049	0.00068	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.00067	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.00087	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.00073	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00067	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Trichloroethene	<0.0049		0.0049	0.00080	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Vinyl acetate	<0.0049		0.0049	0.00077	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Vinyl chloride	<0.0049		0.0049	0.0010	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1
Xylenes, Total	<0.0098		0.0098	0.00044	mg/Kg	☼	02/13/14 16:00	02/19/14 19:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 122	02/13/14 16:00	02/19/14 19:02	1
Dibromofluoromethane	100		75 - 120	02/13/14 16:00	02/19/14 19:02	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	02/13/14 16:00	02/19/14 19:02	1
Toluene-d8 (Surr)	101		75 - 122	02/13/14 16:00	02/19/14 19:02	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.089	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B02

Lab Sample ID: 500-71549-3

Date Collected: 02/13/14 09:35

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 81.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.049	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2-Methylnaphthalene	<0.040		0.040	0.0074	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
N-Nitrosodiphenylamine	<0.20	*	0.20	0.047	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
4,6-Dinitro-2-methylphenol	<0.40		0.40	0.32	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Phenanthrene	<0.040		0.040	0.0056	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B02

Lab Sample ID: 500-71549-3

Date Collected: 02/13/14 09:35

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 81.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	02/17/14 07:13	02/18/14 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	47		25 - 110	02/17/14 07:13	02/18/14 13:44	1
Phenol-d5	51		31 - 110	02/17/14 07:13	02/18/14 13:44	1
Nitrobenzene-d5	38		25 - 115	02/17/14 07:13	02/18/14 13:44	1
2-Fluorobiphenyl	52		25 - 119	02/17/14 07:13	02/18/14 13:44	1
2,4,6-Tribromophenol	56		35 - 137	02/17/14 07:13	02/18/14 13:44	1
Terphenyl-d14	63		36 - 134	02/17/14 07:13	02/18/14 13:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.48	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Arsenic	8.8		0.60	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Barium	34		0.60	0.064	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Beryllium	0.71		0.24	0.048	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Boron	12		3.0	0.60	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Cadmium	0.25	B	0.12	0.015	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Calcium	19000		12	3.2	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Chromium	18		0.60	0.069	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Cobalt	9.4		0.30	0.060	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Copper	33		0.60	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Iron	23000		12	4.9	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Lead	21		0.30	0.089	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Magnesium	15000		6.0	1.2	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Manganese	190		0.60	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Nickel	30		0.60	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Potassium	2700		30	1.8	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Selenium	<0.60		0.60	0.21	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Silver	<0.30		0.30	0.022	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Sodium	1100		60	8.0	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Thallium	0.81		0.60	0.25	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Vanadium	22		0.30	0.044	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1
Zinc	67	B	1.2	0.24	mg/Kg	☼	02/21/14 09:30	02/21/14 18:43	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/24/14 08:00	02/24/14 20:55	1
Chromium	<0.025		0.025	0.010	mg/L		02/24/14 08:00	02/24/14 20:55	1
Iron	<0.20		0.20	0.20	mg/L		02/24/14 08:00	02/24/14 20:55	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-1

Client Sample ID: 2760-55-B02

Lab Sample ID: 500-71549-3

Date Collected: 02/13/14 09:35

Matrix: Solid

Date Received: 02/13/14 14:45

Method: 6010B - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		02/24/14 08:00	02/24/14 20:55	1
Manganese	0.76		0.025	0.010	mg/L		02/24/14 08:00	02/24/14 20:55	1
Nickel	<0.025		0.025	0.010	mg/L		02/24/14 08:00	02/24/14 20:55	1

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.87		0.50	0.050	mg/L		02/17/14 08:30	02/17/14 17:46	1
Beryllium	0.010		0.0040	0.0040	mg/L		02/17/14 08:30	02/17/14 17:46	1
Boron	1.7	B	0.10	0.050	mg/L		02/17/14 08:30	02/17/14 17:46	1
Cadmium	0.0036	J	0.0050	0.0020	mg/L		02/17/14 08:30	02/17/14 17:46	1
Chromium	0.20		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:46	1
Cobalt	0.071		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:46	1
Iron	240		0.20	0.20	mg/L		02/17/14 08:30	02/17/14 17:46	1
Lead	0.22		0.0075	0.0075	mg/L		02/17/14 08:30	02/17/14 17:46	1
Manganese	1.1		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:46	1
Nickel	0.22		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:46	1
Selenium	<0.050		0.050	0.010	mg/L		02/17/14 08:30	02/17/14 17:46	1
Silver	<0.025		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:46	1
Zinc	0.70	B	0.10	0.020	mg/L		02/17/14 08:30	02/17/14 17:46	1

Method: 6020A - Metals (ICP/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020	0.0020	mg/L		02/24/14 08:00	02/24/14 18:22	1

Method: 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/17/14 08:30	02/18/14 12:19	1
Thallium	0.0062		0.0040	0.0040	mg/L		02/17/14 08:30	02/19/14 15:09	2

Method: 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00038		0.00020	0.000020	mg/L		02/17/14 16:30	02/18/14 10:23	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.018	0.0071	mg/Kg	☼	02/14/14 13:39	02/17/14 10:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.09		0.200	0.200	SU			02/24/14 15:11	1

TestAmerica Chicago

Definitions/Glossary

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
F1	MS and/or MSD Recovery exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F3	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



CHAIN OF CUSTODY RECORD

Client: 500-71549 COC	Laboratory: Lab: Test America - Chicago Address: 2417 Bond Street University Park, IL 60484 Phone: 708-534-5200 Contact: Dick Wright email: richard.wright@testamericainc.com	Project Name: IL 83 DuPage Co	COC No.: 1 of 4
Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com	Project No.: IDOT2013-058	TAT: <input checked="" type="checkbox"/> 15 BD <input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> Other	Lab Job No.: 500-71549
Special Instructions: See Table 2 for complete parameter lists and minimum reporting limits. * If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal. ** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter.		Sample Temp: 1.6	

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	ANALYSES										Comments						
					VOCs	SVOCs	BTEX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	pH	% Solids		Waste Characterization					
1	2760-55-B01	2/13/14	10:45	S	X	X						X	X	X	X						0-5
2	2760-55-B01 DUP	2/13/14	10:50	S	X	X						X	X	X	X						0-5
3	2760-55-B02	2/13/14	9:35	S	X	X						X	X	X	X						0-5
4	2760-55-B03	2/13/14	10:15	S	X	X						X	X	X	X						0-5

Relinquished by: Zach Kern	Received by: [Signature]
Date/Time: 2/13/14 13:35	Date/Time: 2/13/14 1335
Relinquished by: [Signature]	Received by: [Signature]
Date/Time: 2/13/14 1445	Date/Time: 2/13/14 1445
Relinquished by:	Received by:
Date/Time:	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: FAP 344 (IL 83) Office Phone Number, if available: _____

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

10S710 S. Robert Kingery Highway

City: Unincorporated State: IL Zip Code: 60527

County: DuPage Township: Downers Grove

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

Latitude: 41.71730 Longitude: -87.94459
(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: FAP 344 (IL 83)Latitude: 41.71730 Longitude: -87.94459Uncontaminated 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 2760-96-B01 WAS SAMPLED ADJACENT TO SITE No. 2760-96. SEE FIGURE 2 AND TABLE 3b OF THE REVISED PRELIMINARY SITE INVESTIGATION

- 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]:

TESTAMERICA ANALYTICAL REPORT - TESTAMERICA JOB ID: 500-71549-2

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

I, Steven Gobelman (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.

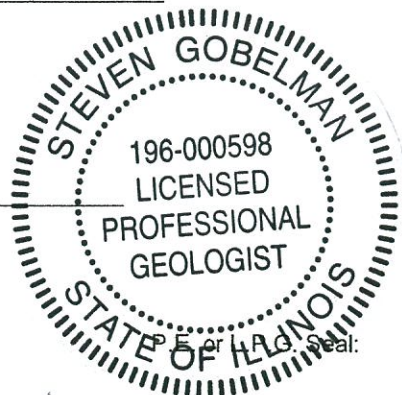
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation, Bureau of Design and EnvironmentStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246

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

Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

Date: 6/30/14

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Volatile Organic Compounds (mg/kg)
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2-Butanone (MEK)
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether (MTBE)
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl Acetate
Vinyl Chloride
Xylenes, total
m-Xylene
o-Xylene
p-Xylene
Semivolatile Organic Compounds (mg/kg)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Semivolatile Organic Compounds (mg/kg) (cont.)
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate
Carbazole
Chrysene
Dibenzo (a,h) anthracene
Dibenzofuran
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Inorganic Compounds, Total (mg/kg)
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
TCLP/SPLP Inorganics (mg/L)
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.
- Samples with the notation “**No Contaminants of Concern Noted**” were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

ISGS Site 2760-96

McDonald's

Sample ID	2760-96-B01	1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
Sample Depth (ft)	0-3						
Sample Date	2/13/2014						
PID	0						
Sample pH	8.48						
Matrix	Soil						

No Contaminants of Concern Noted.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-71549-2
Client Project/Site: IDOT - Willowbrook I83 - WO 058

For:
Andrews Engineering Inc.
3300 Ginger Creek Drive
Springfield, Illinois 62711

Attn: Mike Nelson



Authorized for release by:
2/25/2014 3:44:25 PM

Richard Wright, Senior Project Manager
(708)534-5200
richard.wright@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

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Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-2

Client Sample ID: 2760-96-B01

Lab Sample ID: 500-71549-5

Date Collected: 02/13/14 08:45

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0096		0.0048	0.0021	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Benzene	<0.0048		0.0048	0.00066	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Bromodichloromethane	<0.0048		0.0048	0.00082	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Bromoform	<0.0048		0.0048	0.0011	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Bromomethane	<0.0048		0.0048	0.0014	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
2-Butanone (MEK)	<0.0048		0.0048	0.0017	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Carbon disulfide	<0.0048		0.0048	0.00071	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Carbon tetrachloride	<0.0048		0.0048	0.00087	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Chlorobenzene	<0.0048		0.0048	0.00048	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Chloroethane	<0.0048		0.0048	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Chloroform	<0.0048		0.0048	0.00055	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Chloromethane	<0.0048		0.0048	0.0010	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
cis-1,2-Dichloroethene	<0.0048		0.0048	0.00068	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
cis-1,3-Dichloropropene	<0.0048		0.0048	0.00063	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Dibromochloromethane	<0.0048		0.0048	0.00083	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
1,1-Dichloroethane	<0.0048		0.0048	0.00076	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
1,2-Dichloroethane	<0.0048		0.0048	0.00071	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
1,1,1-Dichloroethane	<0.0048		0.0048	0.00077	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
1,2-Dichloropropane	<0.0048		0.0048	0.00073	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
1,3-Dichloropropene, Total	<0.0048		0.0048	0.00063	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Ethylbenzene	<0.0048		0.0048	0.00097	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
2-Hexanone	<0.0048		0.0048	0.0014	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Methylene Chloride	<0.0048		0.0048	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0013	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Methyl tert-butyl ether	<0.0048		0.0048	0.00079	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Styrene	<0.0048		0.0048	0.00063	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
1,1,1,2-Tetrachloroethane	<0.0048		0.0048	0.00097	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Tetrachloroethene	<0.0048		0.0048	0.00073	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Toluene	<0.0048		0.0048	0.00067	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
trans-1,2-Dichloroethene	<0.0048		0.0048	0.00066	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
trans-1,3-Dichloropropene	<0.0048		0.0048	0.00086	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
1,1,1-Trichloroethane	<0.0048		0.0048	0.00071	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
1,1,2-Trichloroethane	<0.0048		0.0048	0.00065	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Trichloroethene	<0.0048		0.0048	0.00079	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Vinyl acetate	<0.0048		0.0048	0.00075	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Vinyl chloride	<0.0048		0.0048	0.0010	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1
Xylenes, Total	<0.0096		0.0096	0.00043	mg/Kg	☼	02/13/14 16:00	02/19/14 19:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 122	02/13/14 16:00	02/19/14 19:50	1
Dibromofluoromethane	102		75 - 120	02/13/14 16:00	02/19/14 19:50	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	02/13/14 16:00	02/19/14 19:50	1
Toluene-d8 (Surr)	100		75 - 122	02/13/14 16:00	02/19/14 19:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	<0.20		0.20	0.086	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-2

Client Sample ID: 2760-96-B01

Lab Sample ID: 500-71549-5

Date Collected: 02/13/14 08:45

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.047	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2-Methylnaphthalene	<0.039		0.039	0.0071	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
N-Nitrosodiphenylamine	<0.20	*	0.20	0.046	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
4,6-Dinitro-2-methylphenol	<0.39		0.39	0.31	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-2

Client Sample ID: 2760-96-B01

Lab Sample ID: 500-71549-5

Date Collected: 02/13/14 08:45

Matrix: Solid

Date Received: 02/13/14 14:45

Percent Solids: 83.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	02/17/14 07:13	02/18/14 14:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	59		25 - 110				02/17/14 07:13	02/18/14 14:26	1
Phenol-d5	63		31 - 110				02/17/14 07:13	02/18/14 14:26	1
Nitrobenzene-d5	62		25 - 115				02/17/14 07:13	02/18/14 14:26	1
2-Fluorobiphenyl	63		25 - 119				02/17/14 07:13	02/18/14 14:26	1
2,4,6-Tribromophenol	69		35 - 137				02/17/14 07:13	02/18/14 14:26	1
Terphenyl-d14	73		36 - 134				02/17/14 07:13	02/18/14 14:26	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.47	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Arsenic	8.6		0.59	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Barium	66		0.59	0.063	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Beryllium	0.55		0.24	0.047	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Boron	4.2		2.9	0.59	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Cadmium	0.10	J B	0.12	0.015	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Calcium	2500		12	3.2	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Chromium	22		0.59	0.068	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Cobalt	9.3		0.29	0.059	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Copper	21		0.59	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Iron	23000		12	4.8	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Lead	18		0.29	0.088	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Magnesium	4300		5.9	1.2	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Manganese	200		0.59	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Nickel	18		0.59	0.12	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Potassium	1500		29	1.8	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Selenium	<0.59		0.59	0.21	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Silver	<0.29		0.29	0.021	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Sodium	1500		59	7.9	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Thallium	0.30	J	0.59	0.25	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Vanadium	35		0.29	0.044	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1
Zinc	57	B	1.2	0.24	mg/Kg	☼	02/21/14 09:30	02/21/14 18:52	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2.4		0.20	0.20	mg/L		02/24/14 08:00	02/24/14 21:05	1
Lead	0.0082		0.0075	0.0075	mg/L		02/24/14 08:00	02/24/14 21:05	1
Manganese	1.3		0.025	0.010	mg/L		02/24/14 08:00	02/24/14 21:05	1

TestAmerica Chicago

Client Sample Results

Client: Andrews Engineering Inc.
 Project/Site: IDOT - Willowbrook I83 - WO 058

TestAmerica Job ID: 500-71549-2

Client Sample ID: 2760-96-B01

Lab Sample ID: 500-71549-5

Date Collected: 02/13/14 08:45

Matrix: Solid

Date Received: 02/13/14 14:45

Method: 6010B - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.45	J	0.50	0.050	mg/L		02/17/14 08:30	02/17/14 17:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		02/17/14 08:30	02/17/14 17:56	1
Boron	1.1	B	0.10	0.050	mg/L		02/17/14 08:30	02/17/14 17:56	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/17/14 08:30	02/17/14 17:56	1
Chromium	0.079		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:56	1
Cobalt	0.017	J	0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:56	1
Iron	73		0.20	0.20	mg/L		02/17/14 08:30	02/17/14 17:56	1
Lead	0.064		0.0075	0.0075	mg/L		02/17/14 08:30	02/17/14 17:56	1
Manganese	0.76		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:56	1
Nickel	0.040		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:56	1
Selenium	<0.050		0.050	0.010	mg/L		02/17/14 08:30	02/17/14 17:56	1
Silver	<0.025		0.025	0.010	mg/L		02/17/14 08:30	02/17/14 17:56	1
Zinc	0.33	B	0.10	0.020	mg/L		02/17/14 08:30	02/17/14 17:56	1

Method: 6020A - Metals (ICP/MS) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		02/17/14 08:30	02/18/14 12:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L		02/17/14 08:30	02/18/14 12:26	1

Method: 7470A - Mercury (CVAA) - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000088	J	0.00020	0.000020	mg/L		02/17/14 16:30	02/18/14 10:31	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.018	0.0072	mg/Kg	✱	02/14/14 13:39	02/17/14 10:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.48		0.200	0.200	SU			02/24/14 15:14	1

Definitions/Glossary

Client: Andrews Engineering Inc.
Project/Site: IDOT - Willowbrook 183 - WO 058

TestAmerica Job ID: 500-71549-2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

