



# Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • IL • 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: IL HSR Union Pacific RR Office Phone Number, if available: \_\_\_\_\_

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

2600 block of IL 53 (IL 53 and West Hoff Road)

City: Elwood State: IL Zip Code: 60421

County: Will Township: Jackson

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

Latitude: 41.39310 Longitude: -88.11631

(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 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: IL HSR Union Pacific RR

Latitude: 41.39310 Longitude: -88.11631

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 approximately located 35 Ill. Adm. Code 1100.610(a):

LOCATIONS 2965-33-B01, -B03, AND -B04 WERE SAMPLED ADJACENT TO SITE 2965-33. SEE TABLE 3b AND FIGURE 2 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT.

- 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]:

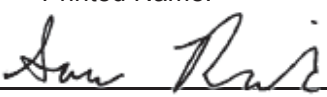
TESTAMERICA ANALYTICAL REPORT - JOB ID NUMBER: 500-103200-2

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

I, Savo Radulovic, 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 55.51(a) 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: Andrews Engineering, Inc.  
 Street Address: 420 Eisenhower Lane North  
 City: Lombard State: IL Zip Code: 60148  
 Phone: 630-953-3332

Savo Radulovic  
 Printed Name:  
  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

January 15, 2016  
 Date:



P.E. or L.P.G. Seal:

**THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES**

**Analytical Parameters**

<b>Volatile Organic Compounds (mg/kg)</b>
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
<b>Semivolatile Organic Compounds (mg/kg)</b>
1,2,4-Trichlorobenzene
1,2-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
3,3'-Dichlorobenzidine
4,6-Dinitro-2-methylphenol
4-Chloroaniline
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene

**THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES**

*Analytical Parameters*

<b>Semivolatile Organic Compounds (mg/kg) (cont.)</b>
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)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
<b>Inorganic Compounds, Total (mg/kg)</b>
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Vanadium
Zinc
<b>TCLP/SPLP Inorganics (mg/L)</b>
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 2965-33

ROW

Sample ID	2965-33-B01	2965-33-B03	2965-33-B04	<sup>1</sup> Most Stringent MAC	<sup>2</sup> Outside a Populated Area MAC	<sup>3</sup> Populated non- Metropolitan Statistical Area MAC	<sup>4</sup> Within Chicago Corporate Limits MAC	<sup>5</sup> Metropolitan Statistical Area MAC	<sup>6</sup> Class I Soil TCLP/SPLP Comparisons Only	
Sample Depth (ft)	0-2	0-2	0-2							
Sample Date	10/28/2015	10/28/2015	10/28/2015							
PID	0	0	0							
Sample pH	8.51	8.01	8.71							
Matrix	Soil	Soil	Soil							
Semivolatile Organic Compounds (mg/kg)										
Benzo(a)pyrene	0.16	1,2	J 0.03	ND	0.09	0.09	0.98	1.3	2.1	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: 500-103200-2  
Client Project/Site: IDOT - IL HSR UPRR - WO 021  
Revision: 1

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

Attn: Ms. Colleen Grey

*Jodie Bracken*

Authorized for release by:  
11/17/2015 5:03:38 PM  
Jodie Bracken, Project Management Assistant II  
[jodie.bracken@testamericainc.com](mailto:jodie.bracken@testamericainc.com)

Designee for  
Richard Wright, Senior Project Manager  
(708)534-5200  
[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://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 - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B01**

**Lab Sample ID: 500-103200-4**

**Date Collected: 10/28/15 09:18**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 88.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.022		0.022	0.0043	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Benzene	<0.0055		0.0055	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Bromodichloromethane	<0.0055		0.0055	0.00094	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Bromoform	<0.0055		0.0055	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Bromomethane	<0.0055		0.0055	0.0020	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
2-Butanone (MEK)	<0.0055		0.0055	0.0020	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Carbon disulfide	<0.0055		0.0055	0.0020	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Carbon tetrachloride	<0.0055		0.0055	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Chlorobenzene	<0.0055		0.0055	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Chloroethane	<0.0055	*	0.0055	0.0023	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Chloroform	<0.0055		0.0055	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Chloromethane	<0.0055		0.0055	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
cis-1,2-Dichloroethene	<0.0055		0.0055	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
cis-1,3-Dichloropropene	<0.0055		0.0055	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Dibromochloromethane	<0.0055		0.0055	0.00064	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
1,1-Dichloroethane	<0.0055		0.0055	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
1,2-Dichloroethane	<0.0055		0.0055	0.00082	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
1,1-Dichloroethene	<0.0055		0.0055	0.0020	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
1,2-Dichloropropane	<0.0055		0.0055	0.0015	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
1,3-Dichloropropane, Total	<0.0055		0.0055	0.0016	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Ethylbenzene	<0.0055		0.0055	0.0014	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
2-Hexanone	<0.0055		0.0055	0.0017	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Methylene Chloride	<0.0055		0.0055	0.0042	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
4-Methyl-2-pentanone (MIBK)	<0.0055		0.0055	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Methyl tert-butyl ether	<0.0055		0.0055	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Styrene	<0.0055		0.0055	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
1,1,2,2-Tetrachloroethane	<0.0055		0.0055	0.00088	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Tetrachloroethene	<0.0055		0.0055	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Toluene	<0.0055		0.0055	0.0019	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
trans-1,2-Dichloroethene	<0.0055		0.0055	0.0014	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
trans-1,3-Dichloropropene	<0.0055		0.0055	0.0016	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
1,1,1-Trichloroethane	<0.0055		0.0055	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
1,1,2-Trichloroethane	<0.0055		0.0055	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Trichloroethene	<0.0055		0.0055	0.0015	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Vinyl acetate	<0.0055		0.0055	0.0015	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Vinyl chloride	<0.0055		0.0055	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1
Xylenes, Total	<0.011		0.011	0.0021	mg/Kg	☼	10/29/15 07:20	11/03/15 13:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 122	10/29/15 07:20	11/03/15 13:38	1
Dibromofluoromethane	104		75 - 120	10/29/15 07:20	11/03/15 13:38	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	10/29/15 07:20	11/03/15 13:38	1
Toluene-d8 (Surr)	98		75 - 122	10/29/15 07:20	11/03/15 13:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.036		0.036	0.0065	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Acenaphthylene	0.050		0.036	0.0048	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Anthracene	0.016	J	0.036	0.0060	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Benzo[a]anthracene	0.098		0.036	0.0049	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1

TestAmerica Chicago



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B01**

**Lab Sample ID: 500-103200-4**

**Date Collected: 10/28/15 09:18**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 88.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.16		0.036	0.0070	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Benzo[b]fluoranthene	0.28		0.036	0.0078	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Benzo[g,h,i]perylene	0.080		0.036	0.012	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Benzo[k]fluoranthene	0.11		0.036	0.011	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Carbazole	<0.18		0.18	0.090	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Chrysene	0.15		0.036	0.0099	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Dibenz(a,h)anthracene	0.024	J	0.036	0.0070	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Dibenzofuran	<0.18		0.18	0.042	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Fluoranthene	0.25		0.036	0.0067	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Fluorene	<0.036		0.036	0.0051	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Indeno[1,2,3-cd]pyrene	0.10		0.036	0.0094	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2-Methylnaphthalene	<0.036		0.036	0.0066	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Naphthalene	<0.036		0.036	0.0056	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
N-Nitrosodi-n-propylamine	<0.18		0.18	0.044	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Phenanthrene	0.053		0.036	0.0050	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Phenol	<0.18		0.18	0.080	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1

TestAmerica Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B01**

**Lab Sample ID: 500-103200-4**

**Date Collected: 10/28/15 09:18**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 88.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Pyrene</b>	<b>0.19</b>		0.036	0.0072	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	11/04/15 07:12	11/09/15 16:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		25 - 119				11/04/15 07:12	11/09/15 16:55	1
2-Fluorophenol	86		25 - 110				11/04/15 07:12	11/09/15 16:55	1
Nitrobenzene-d5	33		25 - 115				11/04/15 07:12	11/09/15 16:55	1
Phenol-d5	49		31 - 110				11/04/15 07:12	11/09/15 16:55	1
Terphenyl-d14	136	X	36 - 134				11/04/15 07:12	11/09/15 16:55	1
2,4,6-Tribromophenol	65		35 - 137				11/04/15 07:12	11/09/15 16:55	1

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.52</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Arsenic</b>	<b>6.5</b>		0.53	0.25	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Barium</b>	<b>53</b>		0.53	0.098	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Beryllium</b>	<b>0.53</b>		0.21	0.046	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Boron</b>	<b>8.6</b>		2.7	0.37	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Cadmium</b>	<b>0.31</b>		0.11	0.031	mg/Kg	☼	11/04/15 20:46	11/06/15 15:03	1
<b>Chromium</b>	<b>12</b>	<b>B</b>	0.53	0.092	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Cobalt</b>	<b>6.9</b>		0.27	0.060	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Copper</b>	<b>16</b>		0.53	0.12	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Iron</b>	<b>14000</b>		11	4.1	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Lead</b>	<b>39</b>		0.27	0.13	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Magnesium</b>	<b>40000</b>		5.3	2.2	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Manganese</b>	<b>420</b>		0.53	0.11	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Nickel</b>	<b>13</b>		0.53	0.14	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Selenium</b>	<b>0.48</b>	<b>J B</b>	0.53	0.26	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
Silver	<0.27		0.27	0.063	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
Thallium	<0.53		0.53	0.26	mg/Kg	☼	11/04/15 20:46	11/06/15 15:03	1
<b>Vanadium</b>	<b>17</b>		0.27	0.078	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1
<b>Zinc</b>	<b>70</b>	<b>B</b>	1.1	0.34	mg/Kg	☼	11/04/15 20:46	11/06/15 03:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.20		0.20	0.20	mg/L		11/10/15 16:30	11/11/15 14:54	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/10/15 16:30	11/11/15 14:54	1
<b>Manganese</b>	<b>0.095</b>		0.025	0.010	mg/L		11/10/15 16:30	11/11/15 14:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.018</b>	<b>J</b>	0.050	0.010	mg/L		11/05/15 14:10	11/06/15 16:35	1
<b>Barium</b>	<b>0.29</b>	<b>J</b>	0.50	0.050	mg/L		11/05/15 14:10	11/06/15 16:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/05/15 14:10	11/06/15 16:35	1
<b>Boron</b>	<b>1.2</b>		0.10	0.050	mg/L		11/05/15 14:10	11/06/15 16:35	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		11/05/15 14:10	11/06/15 16:35	1
<b>Chromium</b>	<b>0.044</b>		0.025	0.010	mg/L		11/05/15 14:10	11/06/15 16:35	1
<b>Cobalt</b>	<b>0.010</b>	<b>J</b>	0.025	0.010	mg/L		11/05/15 14:10	11/06/15 16:35	1

TestAmerica Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B01**

**Lab Sample ID: 500-103200-4**

**Date Collected: 10/28/15 09:18**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 88.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	43		0.20	0.20	mg/L		11/05/15 14:10	11/06/15 16:35	1
Lead	0.10		0.0075	0.0075	mg/L		11/05/15 14:10	11/06/15 16:35	1
Manganese	0.27		0.025	0.010	mg/L		11/05/15 14:10	11/06/15 16:35	1
Nickel	0.036		0.025	0.010	mg/L		11/05/15 14:10	11/06/15 16:35	1
Selenium	<0.050		0.050	0.020	mg/L		11/05/15 14:10	11/06/15 16:35	1
Silver	<0.025		0.025	0.010	mg/L		11/05/15 14:10	11/06/15 16:35	1
Zinc	0.32		0.10	0.020	mg/L		11/05/15 14:10	11/06/15 16:35	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		11/05/15 14:10	11/06/15 13:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L		11/05/15 14:10	11/06/15 13:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		11/05/15 17:30	11/06/15 09:48	1

**Method: 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0091	J	0.018	0.0063	mg/Kg	☼	11/03/15 16:00	11/04/15 10:53	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.51		0.200	0.200	SU			11/04/15 15:56	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B03**

**Lab Sample ID: 500-103200-6**

Date Collected: 10/28/15 08:58

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 78.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.019		0.019	0.0038	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Benzene	<0.0049		0.0049	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Bromodichloromethane	<0.0049		0.0049	0.00082	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Bromoform	<0.0049		0.0049	0.00099	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Bromomethane	<0.0049		0.0049	0.0018	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
2-Butanone (MEK)	<0.0049		0.0049	0.0017	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Carbon disulfide	<0.0049		0.0049	0.0018	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Carbon tetrachloride	<0.0049		0.0049	0.0010	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Chlorobenzene	<0.0049		0.0049	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Chloroethane	<0.0049	*	0.0049	0.0020	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Chloroform	<0.0049		0.0049	0.00095	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Chloromethane	<0.0049		0.0049	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
cis-1,2-Dichloroethene	<0.0049		0.0049	0.00099	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
cis-1,3-Dichloropropene	<0.0049		0.0049	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Dibromochloromethane	<0.0049		0.0049	0.00056	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
1,1-Dichloroethane	<0.0049		0.0049	0.0010	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
1,2-Dichloroethane	<0.0049		0.0049	0.00072	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
1,1-Dichloroethene	<0.0049		0.0049	0.0018	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
1,2-Dichloropropane	<0.0049		0.0049	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
1,3-Dichloropropane, Total	<0.0049		0.0049	0.0014	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Ethylbenzene	<0.0049		0.0049	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Methylene Chloride	<0.0049		0.0049	0.0037	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0010	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Methyl tert-butyl ether	<0.0049		0.0049	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Styrene	<0.0049		0.0049	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
1,1,2,2-Tetrachloroethane	<0.0049		0.0049	0.00077	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Tetrachloroethene	<0.0049		0.0049	0.0010	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Toluene	<0.0049		0.0049	0.0017	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
trans-1,2-Dichloroethene	<0.0049		0.0049	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
trans-1,3-Dichloropropene	<0.0049		0.0049	0.0014	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
1,1,1-Trichloroethane	<0.0049		0.0049	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
1,1,2-Trichloroethane	<0.0049		0.0049	0.00094	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Trichloroethene	<0.0049		0.0049	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Vinyl acetate	<0.0049		0.0049	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Vinyl chloride	<0.0049		0.0049	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1
Xylenes, Total	<0.0097		0.0097	0.0018	mg/Kg	☼	10/29/15 07:20	11/03/15 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 122	10/29/15 07:20	11/03/15 14:26	1
Dibromofluoromethane	107		75 - 120	10/29/15 07:20	11/03/15 14:26	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	10/29/15 07:20	11/03/15 14:26	1
Toluene-d8 (Surr)	98		75 - 122	10/29/15 07:20	11/03/15 14:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.041		0.041	0.0075	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Acenaphthylene	0.0081	J	0.041	0.0055	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Anthracene	<0.041		0.041	0.0070	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Benzo[a]anthracene	0.018	J	0.041	0.0056	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1

TestAmerica Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B03**

**Lab Sample ID: 500-103200-6**

**Date Collected: 10/28/15 08:58**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 78.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzo[a]pyrene</b>	<b>0.030</b>	<b>J</b>	0.041	0.0081	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
<b>Benzo[b]fluoranthene</b>	<b>0.049</b>		0.041	0.0090	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.076	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
4-Chloroaniline	<0.84		0.84	0.20	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
<b>Chrysene</b>	<b>0.023</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0081	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2,4-Dichlorophenol	<0.41		0.41	0.099	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Diethyl phthalate	<0.21		0.21	0.071	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
4,6-Dinitro-2-methylphenol	<0.84		0.84	0.34	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2,4-Dinitrophenol	<0.84		0.84	0.73	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2,6-Dinitrotoluene	<0.21		0.21	0.082	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Di-n-octyl phthalate	<0.21		0.21	0.068	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
<b>Fluoranthene</b>	<b>0.032</b>	<b>J</b>	0.041	0.0077	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Fluorene	<0.041		0.041	0.0059	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Hexachlorobenzene	<0.084		0.084	0.0097	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Hexachlorocyclopentadiene	<0.84		0.84	0.24	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2-Methylnaphthalene	<0.041		0.041	0.0077	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
3 & 4 Methylphenol	<0.21		0.21	0.070	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
<b>Naphthalene</b>	<b>0.25</b>		0.041	0.0064	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
4-Nitrophenol	<0.84		0.84	0.40	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
N-Nitrosodi-n-propylamine	<0.21		0.21	0.051	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Pentachlorophenol	<0.84		0.84	0.67	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Phenanthrene	<0.041		0.041	0.0058	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Phenol	<0.21		0.21	0.093	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1

TestAmerica Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B03**

**Lab Sample ID: 500-103200-6**

**Date Collected: 10/28/15 08:58**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 78.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Pyrene</b>	<b>0.025</b>	<b>J</b>	0.041	0.0083	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2,4,5-Trichlorophenol	<0.41		0.41	0.095	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	11/04/15 07:12	11/09/15 17:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		25 - 119				11/04/15 07:12	11/09/15 17:47	1
2-Fluorophenol	71		25 - 110				11/04/15 07:12	11/09/15 17:47	1
Nitrobenzene-d5	49		25 - 115				11/04/15 07:12	11/09/15 17:47	1
Phenol-d5	75		31 - 110				11/04/15 07:12	11/09/15 17:47	1
Terphenyl-d14	124		36 - 134				11/04/15 07:12	11/09/15 17:47	1
2,4,6-Tribromophenol	84		35 - 137				11/04/15 07:12	11/09/15 17:47	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.25	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Arsenic</b>	<b>5.0</b>		0.60	0.28	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Barium</b>	<b>120</b>		0.60	0.11	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Beryllium</b>	<b>0.68</b>		0.24	0.052	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Boron</b>	<b>1.8</b>	<b>J</b>	3.0	0.42	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Cadmium</b>	<b>0.31</b>		0.12	0.035	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Chromium</b>	<b>13</b>	<b>B</b>	0.60	0.10	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Cobalt</b>	<b>8.6</b>		0.30	0.068	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Copper</b>	<b>18</b>		0.60	0.13	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Iron</b>	<b>17000</b>		12	4.6	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Lead</b>	<b>21</b>		0.30	0.15	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Magnesium</b>	<b>3400</b>		6.0	2.4	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Manganese</b>	<b>490</b>		0.60	0.12	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Nickel</b>	<b>20</b>		0.60	0.16	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Selenium</b>	<b>0.41</b>	<b>J</b>	0.60	0.30	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
Silver	<0.30		0.30	0.070	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
Thallium	<0.60		0.60	0.29	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Vanadium</b>	<b>17</b>		0.30	0.087	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1
<b>Zinc</b>	<b>78</b>		1.2	0.38	mg/Kg	☼	11/05/15 11:25	11/06/15 04:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/10/15 16:30	11/11/15 15:13	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/10/15 16:30	11/11/15 15:13	1
Chromium	<0.025		0.025	0.010	mg/L		11/10/15 16:30	11/11/15 15:13	1
Iron	<0.20		0.20	0.20	mg/L		11/10/15 16:30	11/11/15 15:13	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/10/15 16:30	11/11/15 15:13	1
<b>Manganese</b>	<b>2.2</b>		0.025	0.010	mg/L		11/10/15 16:30	11/11/15 15:13	1
<b>Nickel</b>	<b>0.015</b>	<b>J</b>	0.025	0.010	mg/L		11/10/15 16:30	11/11/15 15:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.057</b>		0.050	0.010	mg/L		11/05/15 16:00	11/06/15 17:04	1
<b>Barium</b>	<b>1.4</b>		0.50	0.050	mg/L		11/05/15 16:00	11/06/15 17:04	1
<b>Beryllium</b>	<b>0.0079</b>		0.0040	0.0040	mg/L		11/05/15 16:00	11/06/15 17:04	1

TestAmerica Chicago



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B03**

**Lab Sample ID: 500-103200-6**

**Date Collected: 10/28/15 08:58**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 78.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.091	J	0.10	0.050	mg/L		11/05/15 16:00	11/06/15 17:04	1
Cadmium	0.0029	J	0.0050	0.0020	mg/L		11/05/15 16:00	11/06/15 17:04	1
Chromium	0.20		0.025	0.010	mg/L		11/05/15 16:00	11/06/15 17:04	1
Cobalt	0.047		0.025	0.010	mg/L		11/05/15 16:00	11/06/15 17:04	1
Iron	230		0.20	0.20	mg/L		11/05/15 16:00	11/06/15 17:04	1
Lead	0.11		0.0075	0.0075	mg/L		11/05/15 16:00	11/06/15 17:04	1
Manganese	1.7		0.025	0.010	mg/L		11/05/15 16:00	11/06/15 17:04	1
Nickel	0.22		0.025	0.010	mg/L		11/07/15 20:00	11/09/15 13:08	1
Selenium	<0.050		0.050	0.020	mg/L		11/05/15 16:00	11/06/15 17:04	1
Silver	<0.025		0.025	0.010	mg/L		11/05/15 16:00	11/06/15 17:04	1
Zinc	1.1		0.10	0.020	mg/L		11/05/15 16:00	11/06/15 17:04	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		11/10/15 16:30	11/12/15 10:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	F1	0.0060	0.0060	mg/L		11/05/15 16:00	11/06/15 16:53	1
Thallium	0.0024		0.0020	0.0020	mg/L		11/05/15 16:00	11/06/15 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00063		0.00020	0.00020	mg/L		11/05/15 17:30	11/06/15 11:02	1

**Method: 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.021	0.0072	mg/Kg	☼	11/03/15 16:00	11/04/15 11:01	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.01		0.200	0.200	SU			11/04/15 16:07	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B04**

**Lab Sample ID: 500-103200-7**

**Date Collected: 10/28/15 08:50**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 81.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.021		0.021	0.0040	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Benzene	<0.0051		0.0051	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Bromodichloromethane	<0.0051		0.0051	0.00087	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Bromoform	<0.0051		0.0051	0.0010	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
2-Butanone (MEK)	<0.0051		0.0051	0.0018	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Carbon disulfide	<0.0051		0.0051	0.0019	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Carbon tetrachloride	<0.0051		0.0051	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Chlorobenzene	<0.0051		0.0051	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Chloroethane	<0.0051	*	0.0051	0.0022	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Chloroform	<0.0051		0.0051	0.0010	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Chloromethane	<0.0051		0.0051	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
cis-1,2-Dichloroethene	<0.0051		0.0051	0.0010	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
cis-1,3-Dichloropropene	<0.0051		0.0051	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Dibromochloromethane	<0.0051		0.0051	0.00059	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
1,1-Dichloroethane	<0.0051		0.0051	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
1,2-Dichloroethane	<0.0051		0.0051	0.00076	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
1,1-Dichloroethene	<0.0051		0.0051	0.0019	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
1,2-Dichloropropane	<0.0051		0.0051	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
1,3-Dichloropropane, Total	<0.0051		0.0051	0.0014	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Ethylbenzene	<0.0051		0.0051	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Methylene Chloride	<0.0051		0.0051	0.0039	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Methyl tert-butyl ether	<0.0051		0.0051	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Styrene	<0.0051		0.0051	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
1,1,2,2-Tetrachloroethane	<0.0051		0.0051	0.00081	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Tetrachloroethene	<0.0051		0.0051	0.0011	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Toluene	<0.0051		0.0051	0.0018	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
trans-1,2-Dichloroethene	<0.0051		0.0051	0.0013	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
trans-1,3-Dichloropropene	<0.0051		0.0051	0.0014	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
1,1,1-Trichloroethane	<0.0051		0.0051	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
1,1,2-Trichloroethane	<0.0051		0.0051	0.00099	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Trichloroethene	<0.0051		0.0051	0.0014	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Vinyl acetate	<0.0051		0.0051	0.0014	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Vinyl chloride	<0.0051		0.0051	0.0012	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1
Xylenes, Total	<0.010		0.010	0.0019	mg/Kg	☼	10/29/15 07:20	11/03/15 14:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 122	10/29/15 07:20	11/03/15 14:50	1
Dibromofluoromethane	105		75 - 120	10/29/15 07:20	11/03/15 14:50	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	10/29/15 07:20	11/03/15 14:50	1
Toluene-d8 (Surr)	96		75 - 122	10/29/15 07:20	11/03/15 14:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1

TestAmerica Chicago



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B04**

**Lab Sample ID: 500-103200-7**

**Date Collected: 10/28/15 08:50**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 81.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
<b>Fluoranthene</b>	<b>0.016</b>	<b>J</b>	0.040	0.0075	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2-Methylnaphthalene	<0.040		0.040	0.0074	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
N-Nitrosodi-n-propylamine	<0.20		0.20	0.049	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
<b>Phenanthrene</b>	<b>0.0059</b>	<b>J</b>	0.040	0.0056	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1

TestAmerica Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B04**

**Lab Sample ID: 500-103200-7**

**Date Collected: 10/28/15 08:50**

**Matrix: Solid**

**Date Received: 10/28/15 16:55**

**Percent Solids: 81.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Pyrene</b>	<b>0.0090</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	11/04/15 07:12	11/06/15 16:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		25 - 119				11/04/15 07:12	11/06/15 16:14	1
2-Fluorophenol	90		25 - 110				11/04/15 07:12	11/06/15 16:14	1
Nitrobenzene-d5	77		25 - 115				11/04/15 07:12	11/06/15 16:14	1
Phenol-d5	71		31 - 110				11/04/15 07:12	11/06/15 16:14	1
Terphenyl-d14	104		36 - 134				11/04/15 07:12	11/06/15 16:14	1
2,4,6-Tribromophenol	94		35 - 137				11/04/15 07:12	11/06/15 16:14	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.24	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Arsenic</b>	<b>8.9</b>		0.58	0.27	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Barium</b>	<b>70</b>		0.58	0.11	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Beryllium</b>	<b>0.54</b>		0.23	0.050	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Boron</b>	<b>2.8</b>	<b>J</b>	2.9	0.40	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Cadmium</b>	<b>0.35</b>		0.12	0.034	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Chromium</b>	<b>12</b>	<b>B</b>	0.58	0.10	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Cobalt</b>	<b>9.8</b>		0.29	0.065	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Copper</b>	<b>21</b>		0.58	0.13	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Iron</b>	<b>19000</b>		12	4.5	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Lead</b>	<b>16</b>		0.29	0.14	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Magnesium</b>	<b>16000</b>		5.8	2.4	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Manganese</b>	<b>380</b>		0.58	0.11	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Nickel</b>	<b>26</b>		0.58	0.16	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
Selenium	<0.58		0.58	0.29	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
Silver	<0.29		0.29	0.068	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
Thallium	<0.58		0.58	0.29	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Vanadium</b>	<b>16</b>		0.29	0.085	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1
<b>Zinc</b>	<b>68</b>		1.2	0.37	mg/Kg	☼	11/05/15 11:25	11/06/15 04:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		11/10/15 16:30	11/11/15 15:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		11/10/15 16:30	11/11/15 15:18	1
Chromium	<0.025		0.025	0.010	mg/L		11/10/15 16:30	11/11/15 15:18	1
<b>Iron</b>	<b>0.22</b>		0.20	0.20	mg/L		11/10/15 16:30	11/11/15 15:18	1
Lead	<0.0075		0.0075	0.0075	mg/L		11/10/15 16:30	11/11/15 15:18	1
<b>Manganese</b>	<b>0.033</b>		0.025	0.010	mg/L		11/10/15 16:30	11/11/15 15:18	1
Nickel	<0.025		0.025	0.010	mg/L		11/10/15 16:30	11/11/15 15:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.076</b>		0.050	0.010	mg/L		11/05/15 16:00	11/06/15 17:47	1
<b>Barium</b>	<b>0.69</b>		0.50	0.050	mg/L		11/05/15 16:00	11/06/15 17:47	1
<b>Beryllium</b>	<b>0.0052</b>		0.0040	0.0040	mg/L		11/05/15 16:00	11/06/15 17:47	1

TestAmerica Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

**Client Sample ID: 2965-33-B04**

**Lab Sample ID: 500-103200-7**

Date Collected: 10/28/15 08:50

Matrix: Solid

Date Received: 10/28/15 16:55

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.10	0.050	mg/L		11/05/15 16:00	11/06/15 17:47	1
Cadmium	0.0027	J	0.0050	0.0020	mg/L		11/05/15 16:00	11/06/15 17:47	1
Chromium	0.13		0.025	0.010	mg/L		11/05/15 16:00	11/06/15 17:47	1
Cobalt	0.034		0.025	0.010	mg/L		11/05/15 16:00	11/06/15 17:47	1
Iron	160		0.20	0.20	mg/L		11/05/15 16:00	11/06/15 17:47	1
Lead	0.056		0.0075	0.0075	mg/L		11/05/15 16:00	11/06/15 17:47	1
Manganese	0.66		0.025	0.010	mg/L		11/05/15 16:00	11/06/15 17:47	1
Nickel	0.16		0.025	0.010	mg/L		11/07/15 20:00	11/09/15 13:26	1
Selenium	<0.050		0.050	0.020	mg/L		11/05/15 16:00	11/06/15 17:47	1
Silver	<0.025		0.025	0.010	mg/L		11/05/15 16:00	11/06/15 17:47	1
Zinc	0.53		0.10	0.020	mg/L		11/05/15 16:00	11/06/15 17:47	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		11/10/15 16:30	11/12/15 10:59	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		11/05/15 16:00	11/06/15 13:54	1
Thallium	0.0027		0.0020	0.0020	mg/L		11/05/15 16:00	11/06/15 13:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00022		0.00020	0.00020	mg/L		11/05/15 17:30	11/06/15 11:04	1

**Method: 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.054		0.019	0.0066	mg/Kg	☼	11/03/15 16:00	11/04/15 11:03	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.71		0.200	0.200	SU			11/04/15 16:13	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - IL HSR UPRR - WO 021

TestAmerica Job ID: 500-103200-2

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

### GC/MS Semi VOA

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.
X	Surrogate is outside 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.
F1	MS and/or MSD Recovery is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
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.

## 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
CFL	Contains Free Liquid
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

<b>Client Contact</b> Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com	<b>Laboratory</b> Lab: <b>Test America - Chicago</b> Address: <b>2417 Bond Street</b> <b>University Park, IL 60484</b> Phone: <b>708-534-5200</b> Contact: <b>Dick Wright</b> email: richard.wright@testamericainc.com	Project Name: <u>Wilmington, Will Co.</u> Project No.: <u>AE6-021</u> 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 Sampler: <u>J. Hey / Will Co.</u>	COC No.: <u>1</u> of <u>1</u> Lab Job No.: <u>500-103200</u> Sample Temp:
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**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.

**ANALYSES**

**Matrix Key:**  
 W: Water  
 S: Soil  
 SL: Sludge  
 S: Sediment  
 L: Leachate  
 DW: Drinking Water  
 OL: Oil  
 O: Other

Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	pH	% Solids	Waste Characterization	Comments
4	2965-33-B01	10/28/15	0918	S <sub>0.1</sub>	X	X					X	X	X	X		0-2'
5	2965-33-B02	↓	0908	↓	↓	↓					↓	↓	↓	↓		0-2'
6	2965-33-B03	↓	0858	↓	↓	↓					↓	↓	↓	↓		0-2'
7	2965-33-B04	↓	0850	↓	↓	↓					↓	↓	↓	↓		0-2'

Relinquished by: <u>Joshua Woz</u>	Date/Time: <u>10/28/15 1655</u>	Received by: <u>Shaw Roberts</u>	Date/Time: <u>10/28/15 1655</u>
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time: