



# Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

## 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 368 (Pulaski Road) Office Phone Number, if available: \_\_\_\_\_

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

7600-7700 blocks of South Pulaski Road (west and east sides of South Pulaski Road at Ford City Drive)

City: Chicago State: IL Zip Code: 60652

County: Cook Township: Chicago City

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

Latitude: 41.75301 Longitude: -87.72166

(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: 0316665112 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

Approximate Start Date (mm/dd/yyyy): TBD Approximate End Date (mm/dd/yyyy): TBD

Estimated Volume of debris (cu. Yd.): 2,078

### 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: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@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: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@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.

Uncontaminated Soil 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 2774V-10-B03, -B04, -B05, -B09, -B11, -B12, -B13, -B14, -B15, -B16, -B18, -B19, -B20, -B23 AND -B24 WERE SAMPLED ADJACENT TO SITE 2774V-10. SEE TABLE 3a AND FIGURES 2 THROUGH 4 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]:

EUROFINS/TEST AMERICA ANALYTICAL REPORT - TEST AMERICA JOB ID NUMBERS: 500-171841-1 AND 500-171902-1

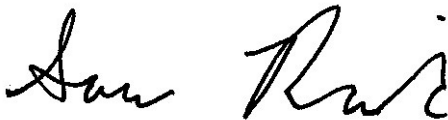
**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

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 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: 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:

Jan 9, 2020  
Date:



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.

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

**ANALYTICAL PARAMETERS**

<b>Volatile Organic Compounds (mg/kg)</b>
1,1,1-Trichloroethane
1,1,1,2-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
<b>Semivolatile Organic Compounds (mg/kg)</b>
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

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

**ANALYTICAL PARAMETERS**

<b>Semivolatile Organic Compounds (mg/kg)</b>
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
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

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

***ANALYTICAL PARAMETERS***

<b>Semivolatile Organic Compounds (mg/kg)</b>
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
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Vanadium
Zinc
Cyanide
<b>TCLP/SPLP Inorganics (mg/L)</b>
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc
Cyanide

ISGS Site 2774V-10

ROW

Sample ID	2774V-10-B03	2774V-10-B04	2774V-10-B05	2774V-10-B09	2774V-10-B11	Maximum Allowable Concentration				
Sample Depth (ft)	0-4	0-4	0-4	0-6	0-3					
Sample Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019					
PID	0	0	0	0	0					
Sample pH	8.1	8.4	8.7	8.2	8.9					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)pyrene	J 0.015	J 0.022	ND	ND	ND	0.09	0.09	0.98	1.3	2.1

Sample ID	2774V-10-B12	2774V-10-B12 DUP	2774V-10-B13	2774V-10-B14	2774V-10-B15	Maximum Allowable Concentration						
Sample Depth (ft)	0-3	0-3	0-3	0-3	0-6							
Sample Date	10/15/2019	10/15/2019	10/15/2019	10/16/2019	10/16/2019							
PID	0	0	0	0	0							
Sample pH	8.4	8.1	9	8.8	8							
Matrix	Soil	Soil	Soil	Soil	Soil							
<b>Semivolatile Organic Compounds (mg/kg)</b>												
Benzo(a)pyrene	J 0.031	J 0.014	ND	0.39	1,2	0.23	1,2	0.09	0.09	0.98	1.3	2.1

Sample ID	2774V-10-B16	2774V-10-B18	2774V-10-B19	2774V-10-B20	2774V-10-B23	Maximum Allowable Concentration						
Sample Depth (ft)	0-6	0-6	0-6	0-6	0-2							
Sample Date	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019							
PID	0	0	0	0	0							
Sample pH	8.5	8.6	8.6	8.5	8.6							
Matrix	Soil	Soil	Soil	Soil	Soil							
<b>Semivolatile Organic Compounds (mg/kg)</b>												
Benzo(a)pyrene	J 0.021	0.28	1,2	ND	ND	ND		0.09	0.09	0.98	1.3	2.1

Sample ID	2774V-10-B24	Maximum Allowable Concentration					
Sample Depth (ft)	0-2						
Sample Date	10/16/2019						
PID	0						
Sample pH	8.7						
Matrix	Soil						
<b>Semivolatile Organic Compounds (mg/kg)</b>							
Benzo(a)pyrene	0.14	1,2	0.09	0.09	0.98	1.3	2.1

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-171841-1  
Client Project/Site: IDOT - AE7-27

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
10/30/2019 5:05:45 PM

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?



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[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.*



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B03**

**Lab Sample ID: 500-171841-3**

Date Collected: 10/15/19 11:10

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 77.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
<b>2-Butanone (MEK)</b>	<b>0.0044</b>	<b>J</b>	0.0045	0.0020	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
<b>Acetone</b>	<b>0.021</b>		0.018	0.0078	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Chloroethane	<0.0045	*	0.0045	0.0013	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	10/16/19 18:35	10/24/19 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	10/16/19 18:35	10/24/19 17:30	1
4-Bromofluorobenzene (Surr)	96		75 - 131	10/16/19 18:35	10/24/19 17:30	1
Dibromofluoromethane	96		75 - 126	10/16/19 18:35	10/24/19 17:30	1
Toluene-d8 (Surr)	94		75 - 124	10/16/19 18:35	10/24/19 17:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
1,2-Dichlorobenzene	<0.21		0.21	0.051	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
1,3-Dichlorobenzene	<0.21		0.21	0.048	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
1,4-Dichlorobenzene	<0.21		0.21	0.055	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.049	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B03**

**Lab Sample ID: 500-171841-3**

Date Collected: 10/15/19 11:10

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 77.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.42		0.42	0.097	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2,4,6-Trichlorophenol	<0.42		0.42	0.15	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2,4-Dichlorophenol	<0.42		0.42	0.10	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2,4-Dimethylphenol	<0.42		0.42	0.16	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2,4-Dinitrophenol	<0.86	*	0.86	0.75	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2,4-Dinitrotoluene	<0.21		0.21	0.068	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2,6-Dinitrotoluene	<0.21		0.21	0.084	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2-Chloronaphthalene	<0.21		0.21	0.047	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2-Chlorophenol	<0.21		0.21	0.073	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2-Methylnaphthalene	<0.086		0.086	0.0078	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2-Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2-Nitroaniline	<0.21		0.21	0.057	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
2-Nitrophenol	<0.42		0.42	0.10	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
3 & 4 Methylphenol	<0.21		0.21	0.071	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.060	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
3-Nitroaniline	<0.42		0.42	0.13	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
4,6-Dinitro-2-methylphenol	<0.86		0.86	0.34	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.056	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
4-Chloro-3-methylphenol	<0.42		0.42	0.14	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
4-Chloroaniline	<0.86		0.86	0.20	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.050	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
4-Nitroaniline	<0.42		0.42	0.18	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
4-Nitrophenol	<0.86		0.86	0.41	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Acenaphthene	<0.042		0.042	0.0077	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Acenaphthylene	<0.042		0.042	0.0056	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Anthracene	<0.042		0.042	0.0071	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
<b>Benzo[a]anthracene</b>	<b>0.013</b>	<b>J</b>	0.042	0.0057	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
<b>Benzo[a]pyrene</b>	<b>0.015</b>	<b>J</b>	0.042	0.0082	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
<b>Benzo[b]fluoranthene</b>	<b>0.013</b>	<b>J</b>	0.042	0.0092	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Benzo[g,h,i]perylene	<0.042		0.042	0.014	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Benzo[k]fluoranthene	<0.042		0.042	0.013	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.064	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.078	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Butyl benzyl phthalate	<0.21		0.21	0.081	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Carbazole	<0.21		0.21	0.11	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
<b>Chrysene</b>	<b>0.014</b>	<b>J</b>	0.042	0.012	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Dibenz(a,h)anthracene	<0.042		0.042	0.0082	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Dibenzofuran	<0.21		0.21	0.050	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Diethyl phthalate	<0.21		0.21	0.072	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Dimethyl phthalate	<0.21		0.21	0.056	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Di-n-butyl phthalate	<0.21		0.21	0.065	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Di-n-octyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
<b>Fluoranthene</b>	<b>0.029</b>	<b>J</b>	0.042	0.0079	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Fluorene	<0.042		0.042	0.0060	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Hexachlorobenzene	<0.086		0.086	0.0099	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Hexachlorobutadiene	<0.21		0.21	0.067	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Hexachlorocyclopentadiene	<0.86	*	0.86	0.24	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Hexachloroethane	<0.21		0.21	0.065	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B03**

**Lab Sample ID: 500-171841-3**

Date Collected: 10/15/19 11:10

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 77.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.042		0.042	0.011	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Isophorone	<0.21		0.21	0.048	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Naphthalene	<0.042		0.042	0.0066	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Nitrobenzene	<0.042		0.042	0.011	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
N-Nitrosodi-n-propylamine	<0.086		0.086	0.052	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
N-Nitrosodiphenylamine	<0.21		0.21	0.050	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Pentachlorophenol	<0.86		0.86	0.68	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
<b>Phenanthrene</b>	<b>0.029</b>	<b>J</b>	0.042	0.0059	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Phenol	<0.21		0.21	0.095	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
<b>Pyrene</b>	<b>0.042</b>		0.042	0.0085	mg/Kg	☼	10/24/19 16:43	10/25/19 14:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	29	X	31 - 143				10/24/19 16:43	10/25/19 14:07	1
2-Fluorobiphenyl	83		43 - 145				10/24/19 16:43	10/25/19 14:07	1
2-Fluorophenol	82		31 - 166				10/24/19 16:43	10/25/19 14:07	1
Nitrobenzene-d5	81		37 - 147				10/24/19 16:43	10/25/19 14:07	1
Phenol-d5	74		30 - 153				10/24/19 16:43	10/25/19 14:07	1
Terphenyl-d14	91		42 - 157				10/24/19 16:43	10/25/19 14:07	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.37</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Arsenic</b>	<b>7.1</b>		0.61	0.21	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Barium</b>	<b>74</b>		0.61	0.070	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Beryllium</b>	<b>0.98</b>		0.24	0.057	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Boron</b>	<b>10</b>		3.1	0.28	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Cadmium</b>	<b>0.18</b>		0.12	0.022	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Calcium</b>	<b>18000</b>	<b>B</b>	12	2.1	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Chromium</b>	<b>22</b>		0.61	0.30	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Cobalt</b>	<b>15</b>		0.31	0.080	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Copper</b>	<b>26</b>		0.61	0.17	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Iron</b>	<b>21000</b>		12	6.4	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Lead</b>	<b>21</b>		0.31	0.14	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Magnesium</b>	<b>11000</b>		6.1	3.0	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Manganese</b>	<b>310</b>		0.61	0.089	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Nickel</b>	<b>37</b>		0.61	0.18	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Potassium</b>	<b>2300</b>		31	11	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Selenium</b>	<b>0.83</b>		0.61	0.36	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Silver</b>	<b>3.6</b>		0.31	0.079	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Sodium</b>	<b>850</b>		61	9.0	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Thallium</b>	<b>1.2</b>		0.61	0.30	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Vanadium</b>	<b>29</b>		0.31	0.072	mg/Kg	☼	10/25/19 18:09	10/28/19 21:45	1
<b>Zinc</b>	<b>67</b>	<b>B</b>	1.2	0.54	mg/Kg	☼	10/25/19 18:09	10/29/19 19:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Iron</b>	<b>0.24</b>	<b>J</b>	0.40	0.20	mg/L		10/29/19 14:52	10/30/19 11:43	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/29/19 14:52	10/30/19 11:43	1
<b>Manganese</b>	<b>5.0</b>		0.025	0.010	mg/L		10/29/19 14:52	10/30/19 11:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B03**

**Lab Sample ID: 500-171841-3**

Date Collected: 10/15/19 11:10

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 77.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014	J	0.050	0.010	mg/L		10/26/19 18:29	10/28/19 23:36	1
Barium	0.14	J	0.50	0.050	mg/L		10/26/19 18:29	10/28/19 23:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/26/19 18:29	10/28/19 23:36	1
Boron	0.12		0.10	0.050	mg/L		10/26/19 18:29	10/29/19 17:55	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:29	10/28/19 23:36	1
Calcium	20		2.5	0.50	mg/L		10/26/19 18:29	10/29/19 17:55	1
Chromium	0.040		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:36	1
Cobalt	0.013	J	0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:36	1
Iron	35		0.40	0.20	mg/L		10/26/19 18:29	10/29/19 17:55	1
Lead	0.028		0.0075	0.0075	mg/L		10/26/19 18:29	10/28/19 23:36	1
Manganese	0.26		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:36	1
Nickel	0.036		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:36	1
Potassium	7.4		2.5	0.50	mg/L		10/26/19 18:29	10/28/19 23:36	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:29	10/28/19 23:36	1
Silver	<0.025		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:36	1
Zinc	0.089	J ^ B	0.50	0.020	mg/L		10/26/19 18:29	10/28/19 23:36	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		10/26/19 18:29	10/28/19 16:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/19 18:29	10/28/19 16:19	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		10/28/19 11:05	10/29/19 10:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.019	0.0065	mg/Kg	☼	10/23/19 14:00	10/24/19 07:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.62		0.62	0.31	mg/Kg	☼	10/28/19 10:10	10/28/19 15:27	1
pH	8.1		0.2	0.2	SU			10/22/19 13:36	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B04**

**Lab Sample ID: 500-171841-4**

**Date Collected: 10/15/19 11:15**

**Matrix: Solid**

**Date Received: 10/16/19 11:10**

**Percent Solids: 82.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
<b>Acetone</b>	<b>0.017</b>		0.017	0.0073	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Bromomethane	<0.0042 *		0.0042	0.0016	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Chloroethane	<0.0042 *		0.0042	0.0012	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	10/16/19 18:35	10/24/19 17:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	10/16/19 18:35	10/24/19 17:56	1
4-Bromofluorobenzene (Surr)	100		75 - 131	10/16/19 18:35	10/24/19 17:56	1
Dibromofluoromethane	95		75 - 126	10/16/19 18:35	10/24/19 17:56	1
Toluene-d8 (Surr)	95		75 - 124	10/16/19 18:35	10/24/19 17:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B04**

**Lab Sample ID: 500-171841-4**

Date Collected: 10/15/19 11:15

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2,4-Dinitrophenol	<0.80	*	0.80	0.70	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>2-Methylnaphthalene</b>	<b>0.0099</b>	<b>J</b>	0.080	0.0073	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Anthracene</b>	<b>0.0069</b>	<b>J</b>	0.040	0.0067	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Benzof[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Benzo[a]pyrene</b>	<b>0.022</b>	<b>J</b>	0.040	0.0077	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Benzo[b]fluoranthene</b>	<b>0.027</b>	<b>J</b>	0.040	0.0086	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Benzo[g,h,i]perylene</b>	<b>0.018</b>	<b>J</b>	0.040	0.013	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Chrysene</b>	<b>0.034</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Fluoranthene</b>	<b>0.033</b>	<b>J</b>	0.040	0.0074	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Hexachlorobenzene	<0.080		0.080	0.0093	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Hexachlorocyclopentadiene	<0.80	*	0.80	0.23	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B04**

**Lab Sample ID: 500-171841-4**

Date Collected: 10/15/19 11:15

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.014</b>	<b>J</b>	0.040	0.010	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Naphthalene</b>	<b>0.010</b>	<b>J</b>	0.040	0.0061	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Phenanthrene</b>	<b>0.042</b>		0.040	0.0056	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Pyrene</b>	<b>0.045</b>		0.040	0.0079	mg/Kg	☼	10/24/19 16:43	10/25/19 14:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol	26	X	31 - 143				10/24/19 16:43	10/25/19 14:34	1
2-Fluorobiphenyl	80		43 - 145				10/24/19 16:43	10/25/19 14:34	1
2-Fluorophenol	77		31 - 166				10/24/19 16:43	10/25/19 14:34	1
Nitrobenzene-d5	75		37 - 147				10/24/19 16:43	10/25/19 14:34	1
Phenol-d5	72		30 - 153				10/24/19 16:43	10/25/19 14:34	1
Terphenyl-d14	85		42 - 157				10/24/19 16:43	10/25/19 14:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.58</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Arsenic</b>	<b>10</b>		0.57	0.19	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Barium</b>	<b>55</b>		0.57	0.065	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Beryllium</b>	<b>0.83</b>		0.23	0.053	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Boron</b>	<b>9.7</b>		2.8	0.27	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Cadmium</b>	<b>0.13</b>		0.11	0.021	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Calcium</b>	<b>28000</b>	<b>B</b>	11	1.9	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Chromium</b>	<b>19</b>		0.57	0.28	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Cobalt</b>	<b>15</b>		0.28	0.075	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Copper</b>	<b>27</b>		0.57	0.16	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Iron</b>	<b>23000</b>		11	5.9	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Lead</b>	<b>21</b>		0.28	0.13	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Magnesium</b>	<b>15000</b>		5.7	2.8	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Manganese</b>	<b>300</b>		0.57	0.083	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Nickel</b>	<b>39</b>		0.57	0.17	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Potassium</b>	<b>2100</b>		28	10	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Selenium</b>	<b>0.76</b>		0.57	0.34	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Silver</b>	<b>3.3</b>		0.28	0.074	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Sodium</b>	<b>640</b>		57	8.4	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Thallium</b>	<b>1.1</b>		0.57	0.28	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Vanadium</b>	<b>24</b>		0.28	0.067	mg/Kg	☼	10/25/19 18:09	10/28/19 21:49	1
<b>Zinc</b>	<b>65</b>	<b>B</b>	1.1	0.50	mg/Kg	☼	10/25/19 18:09	10/29/19 19:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		10/26/19 18:29	10/28/19 23:40	1
Barium	<0.50		0.50	0.050	mg/L		10/26/19 18:29	10/28/19 23:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/26/19 18:29	10/28/19 23:40	1
Boron	<0.10		0.10	0.050	mg/L		10/26/19 18:29	10/29/19 17:59	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B04**

**Lab Sample ID: 500-171841-4**

Date Collected: 10/15/19 11:15

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 82.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:29	10/28/19 23:40	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		10/26/19 18:29	10/29/19 17:59	1
Chromium	<0.025		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:40	1
Cobalt	<0.025		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:40	1
<b>Iron</b>	<b>3.0</b>		0.40	0.20	mg/L		10/26/19 18:29	10/29/19 17:59	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/26/19 18:29	10/28/19 23:40	1
<b>Manganese</b>	<b>0.084</b>		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:40	1
Nickel	<0.025		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:40	1
<b>Potassium</b>	<b>1.7 J</b>		2.5	0.50	mg/L		10/26/19 18:29	10/28/19 23:40	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:29	10/28/19 23:40	1
Silver	<0.025		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:40	1
Zinc	<0.50 ^		0.50	0.020	mg/L		10/26/19 18:29	10/28/19 23:40	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		10/26/19 18:29	10/28/19 16:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		10/26/19 18:29	10/28/19 16:20	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		10/28/19 11:05	10/29/19 10:43	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.027</b>		0.018	0.0060	mg/Kg	☼	10/23/19 14:00	10/24/19 07:29	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.60		0.60	0.30	mg/Kg	☼	10/28/19 10:10	10/28/19 15:27	1
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			10/22/19 13:41	1



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B05**

**Lab Sample ID: 500-171841-5**

**Date Collected: 10/15/19 11:20**

**Matrix: Solid**

**Date Received: 10/16/19 11:10**

**Percent Solids: 85.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0015		0.0015	0.00051	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00066	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
1,1-Dichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
1,1-Dichloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
1,2-Dichloropropane	<0.0015		0.0015	0.00040	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00054	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
2-Butanone (MEK)	<0.0038		0.0038	0.0017	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
<b>Acetone</b>	<b>0.011</b>	<b>J</b>	0.015	0.0067	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Bromoform	<0.0015		0.0015	0.00045	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Bromomethane	<0.0038	*	0.0038	0.0014	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Carbon disulfide	<0.0038		0.0038	0.00080	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Carbon tetrachloride	<0.0015		0.0015	0.00044	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Chlorobenzene	<0.0015		0.0015	0.00056	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Chloroethane	<0.0038	*	0.0038	0.0011	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Chloroform	<0.0015		0.0015	0.00053	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00043	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Dibromochloromethane	<0.0015		0.0015	0.00050	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Ethylbenzene	<0.0015		0.0015	0.00073	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Styrene	<0.0015		0.0015	0.00046	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Tetrachloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Toluene	<0.0015		0.0015	0.00039	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00068	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00054	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Trichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Vinyl chloride	<0.0015		0.0015	0.00068	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1
Xylenes, Total	<0.0031		0.0031	0.00049	mg/Kg	☼	10/16/19 18:35	10/24/19 18:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	10/16/19 18:35	10/24/19 18:22	1
4-Bromofluorobenzene (Surr)	106		75 - 131	10/16/19 18:35	10/24/19 18:22	1
Dibromofluoromethane	94		75 - 126	10/16/19 18:35	10/24/19 18:22	1
Toluene-d8 (Surr)	95		75 - 124	10/16/19 18:35	10/24/19 18:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B05**

**Lab Sample ID: 500-171841-5**

**Date Collected: 10/15/19 11:20**

**Matrix: Solid**

**Date Received: 10/16/19 11:10**

**Percent Solids: 85.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>2-Methylnaphthalene</b>	<b>0.045</b>	<b>J</b>	0.078	0.0071	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Benzo[a]anthracene</b>	<b>0.0094</b>	<b>J</b>	0.038	0.0052	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Benzo[b]fluoranthene	<0.038		0.038	0.0084	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Benzo[g,h,i]perylene</b>	<b>0.018</b>	<b>J</b>	0.038	0.012	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Chrysene</b>	<b>0.024</b>	<b>J</b>	0.038	0.011	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Fluoranthene</b>	<b>0.015</b>	<b>J</b>	0.038	0.0072	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Fluorene</b>	<b>0.0081</b>	<b>J</b>	0.038	0.0054	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Hexachlorocyclopentadiene	<0.78	*	0.78	0.22	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B05**

**Lab Sample ID: 500-171841-5**

Date Collected: 10/15/19 11:20

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Naphthalene</b>	<b>0.0095</b>	<b>J</b>	0.038	0.0060	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Phenanthrene</b>	<b>0.062</b>		0.038	0.0054	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Pyrene</b>	<b>0.030</b>	<b>J</b>	0.038	0.0077	mg/Kg	☼	10/24/19 16:43	10/25/19 15:02	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol	25	X	31 - 143				10/24/19 16:43	10/25/19 15:02	1
2-Fluorobiphenyl	79		43 - 145				10/24/19 16:43	10/25/19 15:02	1
2-Fluorophenol	74		31 - 166				10/24/19 16:43	10/25/19 15:02	1
Nitrobenzene-d5	75		37 - 147				10/24/19 16:43	10/25/19 15:02	1
Phenol-d5	66		30 - 153				10/24/19 16:43	10/25/19 15:02	1
Terphenyl-d14	92		42 - 157				10/24/19 16:43	10/25/19 15:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.65</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Arsenic</b>	<b>8.5</b>		0.55	0.19	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Barium</b>	<b>41</b>		0.55	0.063	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Beryllium</b>	<b>0.72</b>		0.22	0.052	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Boron</b>	<b>11</b>		2.8	0.26	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Cadmium</b>	<b>0.12</b>		0.11	0.020	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Calcium</b>	<b>52000</b>	<b>B</b>	110	19	mg/Kg	☼	10/25/19 18:09	10/29/19 20:08	10
<b>Chromium</b>	<b>17</b>		0.55	0.27	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Cobalt</b>	<b>15</b>		0.28	0.073	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Copper</b>	<b>27</b>		0.55	0.16	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Iron</b>	<b>21000</b>		11	5.8	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Lead</b>	<b>16</b>		0.28	0.13	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Magnesium</b>	<b>21000</b>		5.5	2.7	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Manganese</b>	<b>390</b>		0.55	0.080	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Nickel</b>	<b>37</b>		0.55	0.16	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Potassium</b>	<b>2400</b>		28	9.8	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Selenium</b>	<b>0.72</b>		0.55	0.33	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Silver</b>	<b>2.6</b>		0.28	0.071	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Sodium</b>	<b>790</b>		55	8.2	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Thallium</b>	<b>0.93</b>		0.55	0.28	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Vanadium</b>	<b>19</b>		0.28	0.065	mg/Kg	☼	10/25/19 18:09	10/28/19 21:53	1
<b>Zinc</b>	<b>65</b>	<b>B</b>	1.1	0.49	mg/Kg	☼	10/25/19 18:09	10/29/19 20:03	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		10/29/19 14:52	10/30/19 11:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/29/19 14:52	10/30/19 11:47	1
Chromium	<0.025		0.025	0.010	mg/L		10/29/19 14:52	10/30/19 11:47	1
Iron	<0.40		0.40	0.20	mg/L		10/29/19 14:52	10/30/19 11:47	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B05**

**Lab Sample ID: 500-171841-5**

Date Collected: 10/15/19 11:20

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 85.7

**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		10/29/19 14:52	10/30/19 11:47	1
Manganese	4.1		0.025	0.010	mg/L		10/29/19 14:52	10/30/19 11:47	1
Nickel	0.022	J ^	0.025	0.010	mg/L		10/29/19 14:52	10/30/19 11:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.057		0.050	0.010	mg/L		10/26/19 18:29	10/28/19 23:44	1
Barium	0.44	J	0.50	0.050	mg/L		10/26/19 18:29	10/28/19 23:44	1
Beryllium	0.0067		0.0040	0.0040	mg/L		10/26/19 18:29	10/28/19 23:44	1
Boron	0.21		0.10	0.050	mg/L		10/26/19 18:29	10/29/19 18:03	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:29	10/28/19 23:44	1
Calcium	47		2.5	0.50	mg/L		10/26/19 18:29	10/29/19 18:03	1
Chromium	0.16		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:44	1
Cobalt	0.085		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:44	1
Iron	150		0.40	0.20	mg/L		10/26/19 18:29	10/29/19 18:03	1
Lead	0.11		0.0075	0.0075	mg/L		10/26/19 18:29	10/28/19 23:44	1
Manganese	1.6		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:44	1
Nickel	0.21		0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:44	1
Potassium	30		2.5	0.50	mg/L		10/26/19 18:29	10/28/19 23:44	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:29	10/28/19 23:44	1
Silver	0.013	J	0.025	0.010	mg/L		10/26/19 18:29	10/28/19 23:44	1
Zinc	0.41	J ^ B	0.50	0.020	mg/L		10/26/19 18:29	10/28/19 23:44	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		10/29/19 14:52	10/30/19 10:11	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		10/26/19 18:29	10/28/19 16:21	1
Thallium	0.0024		0.0020	0.0020	mg/L		10/26/19 18:29	10/28/19 16:21	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		10/28/19 11:05	10/29/19 10:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.018	0.0060	mg/Kg	☼	10/23/19 14:00	10/24/19 07:31	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.29	mg/Kg	☼	10/28/19 10:10	10/28/19 15:29	1
pH	8.7		0.2	0.2	SU			10/22/19 13:45	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B09**

**Lab Sample ID: 500-171841-18**

Date Collected: 10/15/19 13:00

Matrix: Solid

Date Received: 10/16/19 11:20

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
<b>Acetone</b>	<b>0.0084</b>	<b>J</b>	0.016	0.0070	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Bromomethane	<0.0040	*	0.0040	0.0015	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	10/16/19 18:35	10/25/19 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	10/16/19 18:35	10/25/19 17:44	1
4-Bromofluorobenzene (Surr)	104		75 - 131	10/16/19 18:35	10/25/19 17:44	1
Dibromofluoromethane	90		75 - 126	10/16/19 18:35	10/25/19 17:44	1
Toluene-d8 (Surr)	93		75 - 124	10/16/19 18:35	10/25/19 17:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B09**

**Lab Sample ID: 500-171841-18**

Date Collected: 10/15/19 13:00

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2,4-Dinitrophenol	<0.76	*	0.76	0.66	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
<b>2-Methylnaphthalene</b>	<b>0.0091</b>	<b>J</b>	0.076	0.0069	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Acenaphthene	<0.037		0.037	0.0068	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Anthracene	<0.037		0.037	0.0063	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Benzo[a]anthracene	<0.037		0.037	0.0051	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Benzo[a]pyrene	<0.037		0.037	0.0073	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Benzo[b]fluoranthene	<0.037		0.037	0.0081	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
<b>Chrysene</b>	<b>0.014</b>	<b>J</b>	0.037	0.010	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0073	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
<b>Fluoranthene</b>	<b>0.011</b>	<b>J</b>	0.037	0.0070	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Fluorene	<0.037		0.037	0.0053	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Hexachlorocyclopentadiene	<0.76	*	0.76	0.22	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B09**

**Lab Sample ID: 500-171841-18**

Date Collected: 10/15/19 13:00

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 86.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.037		0.037	0.0097	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
<b>Phenanthrene</b>	<b>0.024</b>	<b>J</b>	0.037	0.0052	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Phenol	<0.19		0.19	0.083	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
<b>Pyrene</b>	<b>0.016</b>	<b>J</b>	0.037	0.0075	mg/Kg	☼	10/24/19 16:43	10/29/19 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	65		31 - 143				10/24/19 16:43	10/29/19 00:18	1
2-Fluorobiphenyl	87		43 - 145				10/24/19 16:43	10/29/19 00:18	1
2-Fluorophenol	93		31 - 166				10/24/19 16:43	10/29/19 00:18	1
Nitrobenzene-d5	75		37 - 147				10/24/19 16:43	10/29/19 00:18	1
Phenol-d5	90		30 - 153				10/24/19 16:43	10/29/19 00:18	1
Terphenyl-d14	96		42 - 157				10/24/19 16:43	10/29/19 00:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.59</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Arsenic</b>	<b>8.3</b>		0.56	0.19	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Barium</b>	<b>44</b>		0.56	0.063	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Beryllium</b>	<b>0.76</b>		0.22	0.052	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Boron</b>	<b>12</b>		2.8	0.26	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Cadmium</b>	<b>0.13</b>		0.11	0.020	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Calcium</b>	<b>47000</b>	<b>B</b>	110	19	mg/Kg	☼	10/25/19 18:09	10/29/19 22:08	10
<b>Chromium</b>	<b>19</b>		0.56	0.27	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Cobalt</b>	<b>15</b>		0.28	0.073	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Copper</b>	<b>28</b>		0.56	0.16	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Iron</b>	<b>24000</b>		11	5.8	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Lead</b>	<b>16</b>		0.28	0.13	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Magnesium</b>	<b>20000</b>		5.6	2.8	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Manganese</b>	<b>350</b>		0.56	0.081	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Nickel</b>	<b>37</b>		0.56	0.16	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Potassium</b>	<b>2600</b>		28	9.8	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Selenium</b>	<b>0.77</b>		0.56	0.33	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Silver</b>	<b>2.9</b>		0.28	0.072	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Sodium</b>	<b>1400</b>		56	8.2	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Thallium</b>	<b>1.3</b>		0.56	0.28	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Vanadium</b>	<b>23</b>		0.28	0.066	mg/Kg	☼	10/25/19 18:09	10/28/19 22:53	1
<b>Zinc</b>	<b>59</b>	<b>B ^</b>	1.1	0.49	mg/Kg	☼	10/25/19 18:09	10/29/19 22:03	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		10/29/19 14:52	10/30/19 12:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/29/19 14:52	10/30/19 12:36	1
Chromium	<0.025		0.025	0.010	mg/L		10/29/19 14:52	10/30/19 12:36	1
Iron	<0.40		0.40	0.20	mg/L		10/29/19 14:52	10/30/19 12:36	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B09**

**Lab Sample ID: 500-171841-18**

Date Collected: 10/15/19 13:00

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 86.1

**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		10/29/19 14:52	10/30/19 12:36	1
Manganese	3.8		0.025	0.010	mg/L		10/29/19 14:52	10/30/19 12:36	1
Nickel	0.010	J ^	0.025	0.010	mg/L		10/29/19 14:52	10/30/19 12:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.086		0.050	0.010	mg/L		10/26/19 18:29	10/29/19 00:53	1
Barium	0.54		0.50	0.050	mg/L		10/26/19 18:29	10/29/19 00:53	1
Beryllium	0.0075		0.0040	0.0040	mg/L		10/26/19 18:29	10/29/19 00:53	1
Boron	0.20		0.10	0.050	mg/L		10/26/19 18:29	10/29/19 19:03	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:29	10/29/19 00:53	1
Calcium	45		2.5	0.50	mg/L		10/26/19 18:29	10/29/19 19:03	1
Chromium	0.18		0.025	0.010	mg/L		10/26/19 18:29	10/29/19 00:53	1
Cobalt	0.11		0.025	0.010	mg/L		10/26/19 18:29	10/29/19 00:53	1
Iron	210		0.40	0.20	mg/L		10/26/19 18:29	10/29/19 19:03	1
Lead	0.13		0.0075	0.0075	mg/L		10/26/19 18:29	10/29/19 00:53	1
Manganese	2.0		0.025	0.010	mg/L		10/26/19 18:29	10/29/19 00:53	1
Nickel	0.28		0.025	0.010	mg/L		10/26/19 18:29	10/29/19 00:53	1
Potassium	30		2.5	0.50	mg/L		10/26/19 18:29	10/29/19 00:53	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:29	10/29/19 00:53	1
Silver	0.016	J	0.025	0.010	mg/L		10/26/19 18:29	10/29/19 00:53	1
Zinc	0.63	B	0.50	0.020	mg/L		10/26/19 18:29	10/30/19 00:50	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		10/29/19 14:52	10/30/19 10:19	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		10/26/19 18:29	10/28/19 16:37	1
Thallium	0.0036		0.0020	0.0020	mg/L		10/26/19 18:29	10/28/19 16:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00033		0.00033	0.00033	mg/L		10/28/19 11:05	10/29/19 11:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.019	0.0062	mg/Kg	☼	10/23/19 14:00	10/24/19 08:14	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	10/28/19 10:10	10/28/19 15:35	1
pH	8.2		0.2	0.2	SU			10/22/19 14:52	1



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B11**

**Lab Sample ID: 500-171841-20**

Date Collected: 10/15/19 13:10

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00061	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
<b>2-Butanone (MEK)</b>	<b>0.0043</b>	<b>J</b>	0.0044	0.0019	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
<b>Acetone</b>	<b>0.022</b>		0.018	0.0076	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Bromomethane	<0.0044	*	0.0044	0.0017	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
<b>Carbon disulfide</b>	<b>0.0016</b>	<b>J</b>	0.0044	0.00091	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00051	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Vinyl chloride	<0.0018		0.0018	0.00077	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	10/16/19 18:35	10/25/19 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	10/16/19 18:35	10/25/19 18:36	1
4-Bromofluorobenzene (Surr)	104		75 - 131	10/16/19 18:35	10/25/19 18:36	1
Dibromofluoromethane	91		75 - 126	10/16/19 18:35	10/25/19 18:36	1
Toluene-d8 (Surr)	93		75 - 124	10/16/19 18:35	10/25/19 18:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B11**

**Lab Sample ID: 500-171841-20**

**Date Collected: 10/15/19 13:10**

**Matrix: Solid**

**Date Received: 10/16/19 11:10**

**Percent Solids: 82.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2,4-Dinitrophenol	<0.81	*	0.81	0.71	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Hexachlorocyclopentadiene	<0.81	*	0.81	0.23	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B11**

**Lab Sample ID: 500-171841-20**

Date Collected: 10/15/19 13:10

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.010	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
<b>Phenanthrene</b>	<b>0.015</b>	<b>J</b>	0.040	0.0056	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
<b>Pyrene</b>	<b>0.0096</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	10/24/19 16:43	10/29/19 01:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	77		31 - 143				10/24/19 16:43	10/29/19 01:13	1
2-Fluorobiphenyl	78		43 - 145				10/24/19 16:43	10/29/19 01:13	1
2-Fluorophenol	51		31 - 166				10/24/19 16:43	10/29/19 01:13	1
Nitrobenzene-d5	67		37 - 147				10/24/19 16:43	10/29/19 01:13	1
Phenol-d5	31		30 - 153				10/24/19 16:43	10/29/19 01:13	1
Terphenyl-d14	103		42 - 157				10/24/19 16:43	10/29/19 01:13	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.43</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Arsenic</b>	<b>8.5</b>		0.56	0.19	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Barium</b>	<b>56</b>		0.56	0.063	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Beryllium</b>	<b>0.89</b>		0.22	0.052	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Boron</b>	<b>10</b>		2.8	0.26	mg/Kg	☼	10/25/19 18:09	10/29/19 22:20	1
<b>Cadmium</b>	<b>0.049</b>	<b>J</b>	0.11	0.020	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Calcium</b>	<b>7900</b>	<b>B</b>	11	1.9	mg/Kg	☼	10/25/19 18:09	10/29/19 22:20	1
<b>Chromium</b>	<b>22</b>		0.56	0.27	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Cobalt</b>	<b>15</b>		0.28	0.073	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Copper</b>	<b>22</b>		0.56	0.16	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	11	5.8	mg/Kg	☼	10/25/19 18:09	10/29/19 22:20	1
<b>Lead</b>	<b>13</b>		0.28	0.13	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Magnesium</b>	<b>6900</b>		5.6	2.8	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Manganese</b>	<b>190</b>		0.56	0.080	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Nickel</b>	<b>35</b>		0.56	0.16	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Potassium</b>	<b>2200</b>		28	9.8	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Selenium</b>	<b>0.82</b>		0.56	0.33	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Silver</b>	<b>3.1</b>		0.28	0.072	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Sodium</b>	<b>1600</b>		56	8.2	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Thallium</b>	<b>1.0</b>		0.56	0.28	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Vanadium</b>	<b>26</b>		0.28	0.066	mg/Kg	☼	10/25/19 18:09	10/28/19 23:14	1
<b>Zinc</b>	<b>64</b>	<b>B ^</b>	1.1	0.49	mg/Kg	☼	10/25/19 18:09	10/29/19 22:20	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		10/29/19 14:52	10/30/19 13:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/29/19 14:52	10/30/19 13:00	1
Chromium	<0.025		0.025	0.010	mg/L		10/29/19 14:52	10/30/19 13:00	1
<b>Iron</b>	<b>0.45</b>		0.40	0.20	mg/L		10/29/19 14:52	10/30/19 13:00	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B11**

**Lab Sample ID: 500-171841-20**

Date Collected: 10/15/19 13:10

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 82.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.019		0.0075	0.0075	mg/L		10/29/19 14:52	10/30/19 13:00	1
Manganese	8.9		0.025	0.010	mg/L		10/29/19 14:52	10/30/19 13:00	1
Nickel	0.029		0.025	0.010	mg/L		10/29/19 14:52	10/30/19 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.091		0.050	0.010	mg/L		10/26/19 18:29	10/29/19 01:01	1
Barium	0.72		0.50	0.050	mg/L		10/26/19 18:29	10/29/19 01:01	1
Beryllium	0.011		0.0040	0.0040	mg/L		10/26/19 18:29	10/29/19 01:01	1
Boron	0.24	F1	0.10	0.050	mg/L		10/26/19 18:29	10/29/19 19:19	1
Cadmium	<0.0050	F1	0.0050	0.0020	mg/L		10/26/19 18:29	10/29/19 01:01	1
Calcium	42		2.5	0.50	mg/L		10/26/19 18:29	10/29/19 19:19	1
Chromium	0.24		0.025	0.010	mg/L		10/26/19 18:29	10/29/19 01:01	1
Cobalt	0.11		0.025	0.010	mg/L		10/26/19 18:29	10/29/19 01:01	1
Iron	260		0.40	0.20	mg/L		10/26/19 18:29	10/29/19 19:19	1
Lead	0.15		0.0075	0.0075	mg/L		10/26/19 18:29	10/29/19 01:01	1
Manganese	2.5		0.025	0.010	mg/L		10/26/19 18:29	10/29/19 01:01	1
Nickel	0.30		0.025	0.010	mg/L		10/26/19 18:29	10/29/19 01:01	1
Potassium	36	F1	2.5	0.50	mg/L		10/26/19 18:29	10/29/19 01:01	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:29	10/29/19 01:01	1
Silver	0.019	J	0.025	0.010	mg/L		10/26/19 18:29	10/29/19 01:01	1
Zinc	0.60	B	0.50	0.020	mg/L		10/26/19 18:29	10/30/19 01:07	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		10/29/19 14:52	10/30/19 10:26	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		10/26/19 18:29	10/28/19 16:41	1
Thallium	0.0043	F1	0.0020	0.0020	mg/L		10/26/19 18:29	10/28/19 16:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00033		0.00033	0.00033	mg/L		10/28/19 11:05	10/29/19 11:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021		0.019	0.0063	mg/Kg	☼	10/23/19 14:00	10/24/19 08:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.28	mg/Kg	☼	10/28/19 10:10	10/28/19 15:36	1
pH	8.9		0.2	0.2	SU			10/22/19 15:11	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B12**

**Lab Sample ID: 500-171841-21**

**Date Collected: 10/15/19 13:15**

**Matrix: Solid**

**Date Received: 10/16/19 11:10**

**Percent Solids: 85.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
1,1,2,2-Tetrachloroethane	<0.0017	*	0.0017	0.00054	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
<b>Acetone</b>	<b>0.013</b>	<b>J</b>	0.017	0.0073	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Chloroethane	<0.0042	*	0.0042	0.0012	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	10/16/19 18:35	10/28/19 15:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	10/16/19 18:35	10/28/19 15:30	1
4-Bromofluorobenzene (Surr)	128	*	75 - 131	10/16/19 18:35	10/28/19 15:30	1
Dibromofluoromethane	101		75 - 126	10/16/19 18:35	10/28/19 15:30	1
Toluene-d8 (Surr)	109		75 - 124	10/16/19 18:35	10/28/19 15:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B12**

**Lab Sample ID: 500-171841-21**

Date Collected: 10/15/19 13:15

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>2-Methylnaphthalene</b>	<b>0.031</b>	<b>J</b>	0.077	0.0070	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Benzo[a]anthracene</b>	<b>0.033</b>	<b>J</b>	0.038	0.0052	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Benzo[a]pyrene</b>	<b>0.031</b>	<b>J</b>	0.038	0.0074	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Benzo[b]fluoranthene</b>	<b>0.040</b>		0.038	0.0083	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Benzo[g,h,i]perylene</b>	<b>0.033</b>	<b>J</b>	0.038	0.012	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Benzo[k]fluoranthene</b>	<b>0.015</b>	<b>J</b>	0.038	0.011	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Chrysene</b>	<b>0.048</b>		0.038	0.010	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Fluoranthene</b>	<b>0.084</b>		0.038	0.0071	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Fluorene</b>	<b>0.0075</b>	<b>J</b>	0.038	0.0054	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B12**

**Lab Sample ID: 500-171841-21**

Date Collected: 10/15/19 13:15

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 85.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.017</b>	<b>J</b>	0.038	0.0099	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Naphthalene</b>	<b>0.0080</b>	<b>J</b>	0.038	0.0059	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Phenanthrene</b>	<b>0.10</b>		0.038	0.0053	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Pyrene</b>	<b>0.082</b>		0.038	0.0076	mg/Kg	☼	10/22/19 16:16	10/23/19 12:45	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol	93		31 - 143				10/22/19 16:16	10/23/19 12:45	1
2-Fluorobiphenyl	91		43 - 145				10/22/19 16:16	10/23/19 12:45	1
2-Fluorophenol	91		31 - 166				10/22/19 16:16	10/23/19 12:45	1
Nitrobenzene-d5	91		37 - 147				10/22/19 16:16	10/23/19 12:45	1
Phenol-d5	96		30 - 153				10/22/19 16:16	10/23/19 12:45	1
Terphenyl-d14	97		42 - 157				10/22/19 16:16	10/23/19 12:45	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.50</b>	<b>J</b>	1.1	0.21	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Arsenic</b>	<b>7.7</b>		0.54	0.19	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Barium</b>	<b>56</b>		0.54	0.062	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Beryllium</b>	<b>0.79</b>		0.22	0.051	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Boron</b>	<b>14</b>		2.7	0.25	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Cadmium</b>	<b>0.12</b>		0.11	0.020	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Calcium</b>	<b>51000</b>	<b>B</b>	110	18	mg/Kg	☼	10/28/19 08:53	10/29/19 12:52	10
<b>Chromium</b>	<b>19</b>		0.54	0.27	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Cobalt</b>	<b>16</b>		0.27	0.071	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Copper</b>	<b>27</b>		0.54	0.15	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Iron</b>	<b>21000</b>		11	5.7	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Lead</b>	<b>15</b>		0.27	0.13	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Magnesium</b>	<b>20000</b>		5.4	2.7	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Manganese</b>	<b>360</b>		0.54	0.079	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Nickel</b>	<b>39</b>		0.54	0.16	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Potassium</b>	<b>2900</b>		27	9.6	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Selenium</b>	<b>0.68</b>		0.54	0.32	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Silver</b>	<b>2.8</b>		0.27	0.070	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Sodium</b>	<b>940</b>		54	8.1	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Thallium</b>	<b>0.98</b>		0.54	0.27	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Vanadium</b>	<b>22</b>		0.27	0.064	mg/Kg	☼	10/28/19 08:53	10/28/19 20:39	1
<b>Zinc</b>	<b>62</b>	<b>B</b>	1.1	0.48	mg/Kg	☼	10/28/19 08:53	10/29/19 12:48	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		10/29/19 14:54	10/30/19 13:25	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/29/19 14:54	10/30/19 13:25	1
Chromium	<0.025		0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:25	1
Iron	<0.40		0.40	0.20	mg/L		10/29/19 14:54	10/30/19 13:25	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B12**

**Lab Sample ID: 500-171841-21**

Date Collected: 10/15/19 13:15

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 85.9

**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		10/29/19 14:54	10/30/19 13:25	1
<b>Manganese</b>	<b>3.8</b>		0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:25	1
Nickel	<0.025		0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.086</b>		0.050	0.010	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Barium</b>	<b>0.66</b>		0.50	0.050	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Beryllium</b>	<b>0.0085</b>		0.0040	0.0040	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Boron</b>	<b>0.23</b>		0.10	0.050	mg/L		10/26/19 18:31	10/29/19 12:17	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Calcium</b>	<b>57</b>		2.5	0.50	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Chromium</b>	<b>0.22</b>		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Cobalt</b>	<b>0.13</b>		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Iron</b>	<b>220</b>		0.40	0.20	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Lead</b>	<b>0.15</b>		0.0075	0.0075	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Manganese</b>	<b>2.3</b>		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Nickel</b>	<b>0.32</b>		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Potassium</b>	<b>37</b>		2.5	0.50	mg/L		10/26/19 18:31	10/29/19 12:17	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Silver</b>	<b>0.019</b>	<b>J</b>	0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:17	1
<b>Zinc</b>	<b>0.62</b>	<b>B</b>	0.50	0.020	mg/L		10/26/19 18:31	10/30/19 11:53	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		10/29/19 14:54	10/30/19 10:32	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		10/26/19 18:31	10/28/19 16:47	1
<b>Thallium</b>	<b>0.0034</b>		0.0020	0.0020	mg/L		10/26/19 18:31	10/28/19 16:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00033		0.00033	0.00033	mg/L		10/28/19 11:05	10/29/19 10:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.022</b>		0.018	0.0061	mg/Kg	☼	10/23/19 14:00	10/24/19 08:24	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.27	mg/Kg	☼	10/25/19 14:50	10/25/19 18:16	1
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			10/22/19 15:16	1



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B12 Dup**

**Lab Sample ID: 500-171841-22**

Date Collected: 10/15/19 13:20

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
<b>Acetone</b>	<b>0.011</b>	<b>J</b>	0.016	0.0069	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Bromomethane	<0.0039	*	0.0039	0.0015	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Methylene Chloride	<0.0039		0.0039	0.0016	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	10/16/19 18:35	10/25/19 19:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	10/16/19 18:35	10/25/19 19:28	1
4-Bromofluorobenzene (Surr)	113		75 - 131	10/16/19 18:35	10/25/19 19:28	1
Dibromofluoromethane	89		75 - 126	10/16/19 18:35	10/25/19 19:28	1
Toluene-d8 (Surr)	132	X	75 - 124	10/16/19 18:35	10/25/19 19:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B12 Dup**

**Lab Sample ID: 500-171841-22**

Date Collected: 10/15/19 13:20

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>2-Methylnaphthalene</b>	<b>0.017</b>	<b>J</b>	0.078	0.0071	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
2-Nitrophenol	<0.38		0.38	0.092	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Anthracene	<0.038		0.038	0.0065	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>Benzo[a]anthracene</b>	<b>0.014</b>	<b>J</b>	0.038	0.0052	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>Benzo[a]pyrene</b>	<b>0.014</b>	<b>J</b>	0.038	0.0075	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>Benzo[b]fluoranthene</b>	<b>0.017</b>	<b>J</b>	0.038	0.0084	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>Benzo[g,h,i]perylene</b>	<b>0.020</b>	<b>J</b>	0.038	0.012	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>Chrysene</b>	<b>0.029</b>	<b>J</b>	0.038	0.011	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>Fluoranthene</b>	<b>0.030</b>	<b>J</b>	0.038	0.0072	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B12 Dup**

**Lab Sample ID: 500-171841-22**

Date Collected: 10/15/19 13:20

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.038		0.038	0.010	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Isophorone	<0.19		0.19	0.044	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>Phenanthrene</b>	<b>0.053</b>		0.038	0.0054	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
<b>Pyrene</b>	<b>0.040</b>		0.038	0.0077	mg/Kg	☼	10/22/19 16:16	10/23/19 13:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	93		31 - 143				10/22/19 16:16	10/23/19 13:09	1
2-Fluorobiphenyl	87		43 - 145				10/22/19 16:16	10/23/19 13:09	1
2-Fluorophenol	87		31 - 166				10/22/19 16:16	10/23/19 13:09	1
Nitrobenzene-d5	87		37 - 147				10/22/19 16:16	10/23/19 13:09	1
Phenol-d5	95		30 - 153				10/22/19 16:16	10/23/19 13:09	1
Terphenyl-d14	96		42 - 157				10/22/19 16:16	10/23/19 13:09	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.32</b>	<b>J</b>	1.2	0.22	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Arsenic</b>	<b>6.6</b>		0.58	0.20	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Barium</b>	<b>57</b>		0.58	0.066	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Beryllium</b>	<b>0.82</b>		0.23	0.054	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Boron</b>	<b>14</b>		2.9	0.27	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Cadmium</b>	<b>0.11</b>	<b>J</b>	0.12	0.021	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Calcium</b>	<b>34000</b>	<b>B</b>	12	2.0	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Chromium</b>	<b>19</b>		0.58	0.29	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Cobalt</b>	<b>14</b>		0.29	0.076	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Copper</b>	<b>25</b>		0.58	0.16	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Iron</b>	<b>21000</b>		12	6.0	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Lead</b>	<b>17</b>		0.29	0.13	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Magnesium</b>	<b>17000</b>		5.8	2.9	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Manganese</b>	<b>380</b>		0.58	0.084	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Nickel</b>	<b>38</b>		0.58	0.17	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Potassium</b>	<b>2900</b>		29	10	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Selenium</b>	<b>0.99</b>		0.58	0.34	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Silver</b>	<b>3.1</b>		0.29	0.074	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Sodium</b>	<b>970</b>		58	8.5	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Thallium</b>	<b>1.2</b>		0.58	0.29	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Vanadium</b>	<b>24</b>		0.29	0.068	mg/Kg	☼	10/28/19 08:53	10/28/19 20:43	1
<b>Zinc</b>	<b>60</b>	<b>B</b>	1.2	0.51	mg/Kg	☼	10/28/19 08:53	10/29/19 12:56	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		10/29/19 14:54	10/30/19 13:29	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/29/19 14:54	10/30/19 13:29	1
Chromium	<0.025		0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:29	1
<b>Iron</b>	<b>0.33</b>	<b>J</b>	0.40	0.20	mg/L		10/29/19 14:54	10/30/19 13:29	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B12 Dup**

**Lab Sample ID: 500-171841-22**

Date Collected: 10/15/19 13:20

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 84.7

**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		10/29/19 14:54	10/30/19 13:29	1
Manganese	5.1		0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:29	1
Nickel	0.011	J	0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.065		0.050	0.010	mg/L		10/26/19 18:31	10/29/19 12:21	1
Barium	0.55		0.50	0.050	mg/L		10/26/19 18:31	10/29/19 12:21	1
Beryllium	0.0075		0.0040	0.0040	mg/L		10/26/19 18:31	10/29/19 12:21	1
Boron	0.20		0.10	0.050	mg/L		10/26/19 18:31	10/29/19 12:21	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:31	10/29/19 12:21	1
Calcium	39		2.5	0.50	mg/L		10/26/19 18:31	10/29/19 12:21	1
Chromium	0.17		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:21	1
Cobalt	0.093		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:21	1
Iron	180		0.40	0.20	mg/L		10/26/19 18:31	10/29/19 12:21	1
Lead	0.14		0.0075	0.0075	mg/L		10/26/19 18:31	10/29/19 12:21	1
Manganese	1.8		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:21	1
Nickel	0.25		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:21	1
Potassium	28		2.5	0.50	mg/L		10/26/19 18:31	10/29/19 12:21	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:31	10/29/19 12:21	1
Silver	0.016	J	0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:21	1
Zinc	0.45	J ^ B	0.50	0.020	mg/L		10/26/19 18:31	10/29/19 12:21	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		10/29/19 14:54	10/30/19 10:33	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		10/26/19 18:31	10/28/19 16:48	1
Thallium	0.0033		0.0020	0.0020	mg/L		10/26/19 18:31	10/28/19 16:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00033		0.00033	0.00033	mg/L		10/28/19 11:05	10/29/19 10:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.027		0.019	0.0063	mg/Kg	☼	10/23/19 14:00	10/24/19 08:26	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.28	mg/Kg	☼	10/25/19 14:50	10/25/19 18:16	1
pH	8.1		0.2	0.2	SU			10/22/19 15:21	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B13**

**Lab Sample ID: 500-171841-23**

Date Collected: 10/15/19 13:25

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0014		0.0014	0.00048	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00046	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00062	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
1,1-Dichloroethane	<0.0014		0.0014	0.00049	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
1,1-Dichloroethene	<0.0014		0.0014	0.00050	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
1,2-Dichloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
1,2-Dichloropropane	<0.0014		0.0014	0.00037	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
1,3-Dichloropropene, Total	<0.0014		0.0014	0.00051	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
2-Butanone (MEK)	<0.0036		0.0036	0.0016	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
2-Hexanone	<0.0036		0.0036	0.0011	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
4-Methyl-2-pentanone (MIBK)	<0.0036		0.0036	0.0011	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
<b>Acetone</b>	<b>0.0077</b>	<b>J</b>	0.014	0.0063	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Benzene	<0.0014		0.0014	0.00037	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Bromodichloromethane	<0.0014		0.0014	0.00029	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Bromoform	<0.0014		0.0014	0.00042	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Bromomethane	<0.0036		0.0036	0.0014	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Carbon disulfide	<0.0036		0.0036	0.00075	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Carbon tetrachloride	<0.0014		0.0014	0.00042	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Chlorobenzene	<0.0014		0.0014	0.00053	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Chloroethane	<0.0036	*	0.0036	0.0011	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Chloroform	<0.0014		0.0014	0.00050	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Chloromethane	<0.0036		0.0036	0.0015	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00040	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00044	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Dibromochloromethane	<0.0014		0.0014	0.00047	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Ethylbenzene	<0.0014		0.0014	0.00069	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00042	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Methylene Chloride	<0.0036		0.0036	0.0014	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Styrene	<0.0014		0.0014	0.00044	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Tetrachloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Toluene	<0.0014		0.0014	0.00036	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00064	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00051	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Trichloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Vinyl chloride	<0.0014		0.0014	0.00064	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1
Xylenes, Total	<0.0029		0.0029	0.00046	mg/Kg	☼	10/16/19 18:35	10/28/19 15:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	10/16/19 18:35	10/28/19 15:56	1
4-Bromofluorobenzene (Surr)	101		75 - 131	10/16/19 18:35	10/28/19 15:56	1
Dibromofluoromethane	100		75 - 126	10/16/19 18:35	10/28/19 15:56	1
Toluene-d8 (Surr)	98		75 - 124	10/16/19 18:35	10/28/19 15:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B13**

**Lab Sample ID: 500-171841-23**

Date Collected: 10/15/19 13:25

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
<b>2-Methylnaphthalene</b>	<b>0.020</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
<b>Benzo[g,h,i]perylene</b>	<b>0.015</b>	<b>J</b>	0.039	0.013	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
<b>Chrysene</b>	<b>0.017</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
<b>Fluoranthene</b>	<b>0.0074</b>	<b>J</b>	0.039	0.0073	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B13**

**Lab Sample ID: 500-171841-23**

Date Collected: 10/15/19 13:25

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 84.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
<b>Phenanthrene</b>	<b>0.033</b>	<b>J</b>	0.039	0.0055	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
<b>Pyrene</b>	<b>0.017</b>	<b>J</b>	0.039	0.0078	mg/Kg	☼	10/22/19 16:16	10/23/19 13:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		31 - 143				10/22/19 16:16	10/23/19 13:34	1
2-Fluorobiphenyl	83		43 - 145				10/22/19 16:16	10/23/19 13:34	1
2-Fluorophenol	84		31 - 166				10/22/19 16:16	10/23/19 13:34	1
Nitrobenzene-d5	80		37 - 147				10/22/19 16:16	10/23/19 13:34	1
Phenol-d5	90		30 - 153				10/22/19 16:16	10/23/19 13:34	1
Terphenyl-d14	93		42 - 157				10/22/19 16:16	10/23/19 13:34	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	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Arsenic</b>	<b>8.4</b>		0.57	0.20	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Barium</b>	<b>36</b>		0.57	0.065	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Beryllium</b>	<b>0.79</b>		0.23	0.053	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Boron</b>	<b>16</b>		2.9	0.27	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Cadmium</b>	<b>0.10</b>	<b>J</b>	0.11	0.021	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Calcium</b>	<b>48000</b>	<b>B</b>	110	19	mg/Kg	☼	10/28/19 08:53	10/29/19 13:04	10
<b>Chromium</b>	<b>18</b>		0.57	0.28	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Cobalt</b>	<b>16</b>		0.29	0.075	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Copper</b>	<b>24</b>		0.57	0.16	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Iron</b>	<b>20000</b>		11	5.9	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Lead</b>	<b>15</b>		0.29	0.13	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Magnesium</b>	<b>20000</b>		5.7	2.8	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Manganese</b>	<b>390</b>		0.57	0.083	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Nickel</b>	<b>38</b>		0.57	0.17	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Potassium</b>	<b>2900</b>		29	10	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Selenium</b>	<b>0.99</b>		0.57	0.34	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Silver</b>	<b>3.0</b>		0.29	0.074	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Sodium</b>	<b>1200</b>		57	8.4	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Thallium</b>	<b>0.97</b>		0.57	0.28	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Vanadium</b>	<b>22</b>		0.29	0.067	mg/Kg	☼	10/28/19 08:53	10/28/19 20:47	1
<b>Zinc</b>	<b>59</b>	<b>B</b>	1.1	0.50	mg/Kg	☼	10/28/19 08:53	10/29/19 13:00	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		10/29/19 14:54	10/30/19 13:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/29/19 14:54	10/30/19 13:34	1
Chromium	<0.025		0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:34	1
<b>Iron</b>	<b>0.23</b>	<b>J</b>	0.40	0.20	mg/L		10/29/19 14:54	10/30/19 13:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

**Client Sample ID: 2774V-10-B13**

**Lab Sample ID: 500-171841-23**

Date Collected: 10/15/19 13:25

Matrix: Solid

Date Received: 10/16/19 11:10

Percent Solids: 84.1

**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		10/29/19 14:54	10/30/19 13:34	1
<b>Manganese</b>	<b>2.6</b>		0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:34	1
Nickel	<0.025		0.025	0.010	mg/L		10/29/19 14:54	10/30/19 13:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.075</b>		0.050	0.010	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Barium</b>	<b>0.51</b>		0.50	0.050	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Beryllium</b>	<b>0.0076</b>		0.0040	0.0040	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Boron</b>	<b>0.19</b>		0.10	0.050	mg/L		10/26/19 18:31	10/29/19 12:25	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Calcium</b>	<b>42</b>		2.5	0.50	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Chromium</b>	<b>0.18</b>		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Cobalt</b>	<b>0.10</b>		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Iron</b>	<b>180</b>		0.40	0.20	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Lead</b>	<b>0.11</b>		0.0075	0.0075	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Manganese</b>	<b>1.6</b>		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Nickel</b>	<b>0.26</b>		0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Potassium</b>	<b>30</b>		2.5	0.50	mg/L		10/26/19 18:31	10/29/19 12:25	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Silver</b>	<b>0.015</b>	J	0.025	0.010	mg/L		10/26/19 18:31	10/29/19 12:25	1
<b>Zinc</b>	<b>0.47</b>	J ^ B	0.50	0.020	mg/L		10/26/19 18:31	10/29/19 12:25	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		10/29/19 14:54	10/30/19 10:34	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		10/26/19 18:31	10/28/19 16:50	1
<b>Thallium</b>	<b>0.0031</b>		0.0020	0.0020	mg/L		10/26/19 18:31	10/28/19 16:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00033		0.00033	0.00033	mg/L		10/28/19 11:05	10/29/19 10:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.020</b>		0.019	0.0063	mg/Kg	☼	10/23/19 14:00	10/24/19 08:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.29	mg/Kg	☼	10/25/19 14:50	10/25/19 18:17	1
<b>pH</b>	<b>9.0</b>		0.2	0.2	SU			10/22/19 15:26	1



# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	ISTD response or retention time outside acceptable limits
B	Compound was found in the blank and sample.
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

### GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
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
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit
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.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171841-1

## Laboratory: Eurofins TestAmerica, Chicago


Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
7470A	7470A	Solid	Mercury
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

# CHAIN OF CUSTODY RECORD





<b>Client Contact</b>  Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334      500-171841 COC 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>AE7-27A</u> Project No.: <u>PTB/WO:184-006/27A</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>Will Ulewicz</u>	COC No.: <u>1 of 2</u> Lab Job No.: <u>500-171841</u> Sample Temp: <u>3.7.2.7</u>
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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.  
 \*\*\* If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide.

					ANALYSES												
Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization	
1	2774V-10-B01	10-15	1055	S	X	X					X	X	X	X	X		
2	2774V-10-B02		1100														
3	2774V-10-B03		1110														
4	2774V-10-B04		1115														
5	2774V-10-B05		1120														
6	2774V-10-B06		1125														
7	2774V-10-B07-1		1140														
8	2774V-10-B07-2		1145														
9	2774V-10-B07-3		1150														
10	2774V-10-B07-4		1155														
11	2774V-10-B07-4 DUP		1200														
12	2774V-10-B07-5		1205														

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

																	Comments

Relinquished by: 	Date/Time: <u>10-16-19 0915</u>	Received by: 	Date/Time: <u>10/16/19 0915</u>
Relinquished by: 	Date/Time: <u>10/16/19 1110</u>	Received by: 	Date/Time: <u>10/16/19 1110</u>
Relinquished by:	Date/Time:	Received by:	Date/Time:



# CHAIN OF CUSTODY RECORD

<b>Client Contact</b>	<b>Laboratory</b>	Project Name: <u>AET-27A</u>	COC No.: <u>2 of 2</u>
Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com	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 No.: <u>PTB/WO: 184-006/27A</u>	Lab Job No.: <u>5806-171841</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	Sample Temp: <u>37.27</u>
		Sampler: <u>Will Lewicz</u>	

**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.  
\*\*\* If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide.

ANALYSES														
VOCs	SVOCs	BETX & MTBE	PNAS	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization			

**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	*** Cyanide	pH	% Solids	Waste Characterization				Comments	
13	2774V-10-1308-1	10-15	1235	S	X	X					X	X	X	X	X						
14	2774V-10-1308-2	↓	1240																		
15	2774V-10-1308-3		1245																		
16	2774V-10-1308-4		1250																		
17	2774V-10-1308-5		1255																		
18	2774V-10-1309		1300																		
19	2774V-10-1310		1305																		
20	2774V-10-1311		1310																		
21	2774V-10-1312		1315																		
22	2774V-10-1312 DUP		↓	1320																	
23	2774V-10-1313		↓	1325	↓	↓	↓					↓	↓	↓	↓	↓					
24	TRIP BLANK # 1		10-15																		

Relinquished by: <u>[Signature]</u>	Date/Time: <u>10-16-19 0915</u>	Received by: <u>[Signature]</u>	Date/Time: <u>10/16/19 0915</u>
Relinquished by: <u>J. Neal</u>	Date/Time: <u>10/16/19 1110</u>	Received by: <u>[Signature]</u>	Date/Time: <u>10/16/19 1110</u>
Relinquished by:	Date/Time:	Received by:	Date/Time:



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-171902-1  
Client Project/Site: IDOT - AE7-27

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
10/31/2019 3:47:25 PM

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

### LINKS

Review your project  
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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.*

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B23**

**Lab Sample ID: 500-171902-4**

**Date Collected: 10/16/19 10:05**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 81.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0014		0.0014	0.00048	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
1,1,2,2-Tetrachloroethane	<0.0014		0.0014	0.00046	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
1,1,2-Trichloroethane	<0.0014		0.0014	0.00061	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
1,1-Dichloroethane	<0.0014		0.0014	0.00049	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
1,1-Dichloroethene	<0.0014		0.0014	0.00049	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
1,2-Dichloroethane	<0.0036		0.0036	0.0011	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
1,2-Dichloropropane	<0.0014		0.0014	0.00037	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
1,3-Dichloropropene, Total	<0.0014		0.0014	0.00050	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
2-Butanone (MEK)	<0.0036		0.0036	0.0016	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
2-Hexanone	<0.0036		0.0036	0.0011	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
4-Methyl-2-pentanone (MIBK)	<0.0036		0.0036	0.0011	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
<b>Acetone</b>	<b>0.0063</b>	<b>J</b>	0.014	0.0062	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Benzene	<0.0014		0.0014	0.00036	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Bromodichloromethane	<0.0014		0.0014	0.00029	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Bromoform	<0.0014		0.0014	0.00042	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Bromomethane	<0.0036		0.0036	0.0013	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Carbon disulfide	<0.0036		0.0036	0.00074	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Carbon tetrachloride	<0.0014		0.0014	0.00041	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Chlorobenzene	<0.0014		0.0014	0.00053	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Chloroethane	<0.0036	*	0.0036	0.0011	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Chloroform	<0.0014		0.0014	0.00049	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Chloromethane	<0.0036		0.0036	0.0014	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
cis-1,2-Dichloroethene	<0.0014		0.0014	0.00040	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
cis-1,3-Dichloropropene	<0.0014		0.0014	0.00043	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Dibromochloromethane	<0.0014		0.0014	0.00047	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Ethylbenzene	<0.0014		0.0014	0.00068	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Methyl tert-butyl ether	<0.0014		0.0014	0.00042	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Methylene Chloride	<0.0036		0.0036	0.0014	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Styrene	<0.0014		0.0014	0.00043	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Tetrachloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Toluene	<0.0014		0.0014	0.00036	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
trans-1,2-Dichloroethene	<0.0014		0.0014	0.00063	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
trans-1,3-Dichloropropene	<0.0014		0.0014	0.00050	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Trichloroethene	<0.0014		0.0014	0.00048	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Vinyl chloride	<0.0014		0.0014	0.00063	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1
Xylenes, Total	<0.0028		0.0028	0.00046	mg/Kg	☼	10/17/19 17:48	10/25/19 19:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	10/17/19 17:48	10/25/19 19:29	1
4-Bromofluorobenzene (Surr)	109		75 - 131	10/17/19 17:48	10/25/19 19:29	1
Dibromofluoromethane	103		75 - 126	10/17/19 17:48	10/25/19 19:29	1
Toluene-d8 (Surr)	98		75 - 124	10/17/19 17:48	10/25/19 19:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B23**

**Lab Sample ID: 500-171902-4**

**Date Collected: 10/16/19 10:05**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 81.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2-Methylnaphthalene	<0.079		0.079	0.0072	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
<b>Chrysene</b>	<b>0.020</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
<b>Fluoranthene</b>	<b>0.025</b>	<b>J</b>	0.039	0.0072	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B23**

**Lab Sample ID: 500-171902-4**

Date Collected: 10/16/19 10:05

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
<b>Phenanthrene</b>	<b>0.033</b>	<b>J</b>	0.039	0.0054	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
<b>Pyrene</b>	<b>0.022</b>	<b>J</b>	0.039	0.0077	mg/Kg	☼	10/28/19 07:48	10/29/19 01:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	100		31 - 143				10/28/19 07:48	10/29/19 01:05	1
2-Fluorobiphenyl	100		43 - 145				10/28/19 07:48	10/29/19 01:05	1
2-Fluorophenol	97		31 - 166				10/28/19 07:48	10/29/19 01:05	1
Nitrobenzene-d5	95		37 - 147				10/28/19 07:48	10/29/19 01:05	1
Phenol-d5	94		30 - 153				10/28/19 07:48	10/29/19 01:05	1
Terphenyl-d14	157		42 - 157				10/28/19 07:48	10/29/19 01:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.73</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Arsenic</b>	<b>9.4</b>		0.57	0.19	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Barium</b>	<b>50</b>		0.57	0.065	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Beryllium</b>	<b>0.80</b>		0.23	0.053	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Boron</b>	<b>13</b>		2.8	0.26	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Cadmium</b>	<b>0.16</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Calcium</b>	<b>47000</b>		110	19	mg/Kg	☼	10/29/19 16:54	10/31/19 11:53	10
<b>Chromium</b>	<b>19</b>		0.57	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Cobalt</b>	<b>14</b>		0.28	0.074	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Copper</b>	<b>30</b>		0.57	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Iron</b>	<b>21000</b>		11	5.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Lead</b>	<b>19</b>		0.28	0.13	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Magnesium</b>	<b>19000</b>		5.7	2.8	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Manganese</b>	<b>360</b>		0.57	0.082	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Nickel</b>	<b>38</b>	<b>^</b>	0.57	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Potassium</b>	<b>2600</b>		28	10	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Selenium</b>	<b>0.60</b>		0.57	0.33	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Silver</b>	<b>2.9</b>		0.28	0.073	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Sodium</b>	<b>1000</b>		57	8.4	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Thallium</b>	<b>1.1</b>		0.57	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Vanadium</b>	<b>23</b>		0.28	0.067	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	1
<b>Zinc</b>	<b>66</b>	<b>B</b>	1.1	0.50	mg/Kg	☼	10/29/19 16:54	10/30/19 19:15	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		10/30/19 15:58	10/31/19 10:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/30/19 15:58	10/31/19 10:59	1
Chromium	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 10:59	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 10:59	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B23**

**Lab Sample ID: 500-171902-4**

Date Collected: 10/16/19 10:05

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 81.6

**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		10/30/19 15:58	10/31/19 10:59	1
<b>Manganese</b>	<b>3.0</b>		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 10:59	1
Nickel	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.058</b>		0.050	0.010	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Barium</b>	<b>0.73</b>		0.50	0.050	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Beryllium</b>	<b>0.0083</b>		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Boron</b>	<b>0.24</b>		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 16:25	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Calcium</b>	<b>53</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Chromium</b>	<b>0.19</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Cobalt</b>	<b>0.092</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Iron</b>	<b>190</b>		0.40	0.20	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Lead</b>	<b>0.13</b>		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Manganese</b>	<b>1.8</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Nickel</b>	<b>0.25</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Potassium</b>	<b>35</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:25	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Silver</b>	<b>0.018 J</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:25	1
<b>Zinc</b>	<b>0.53</b>		0.50	0.020	mg/L		10/26/19 18:35	10/30/19 18:06	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		10/30/19 15:58	10/31/19 13:00	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		10/26/19 18:35	10/28/19 16:59	1
<b>Thallium</b>	<b>0.0030</b>		0.0020	0.0020	mg/L		10/26/19 18:35	10/28/19 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00033		0.00033	0.00033	mg/L		10/29/19 09:55	10/30/19 11:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.024</b>		0.019	0.0063	mg/Kg	☼	10/24/19 14:30	10/25/19 07:39	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.29	mg/Kg	☼	10/29/19 10:25	10/29/19 15:09	1
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			10/23/19 12:31	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B24**

**Lab Sample ID: 500-171902-5**

**Date Collected: 10/16/19 10:15**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 86.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Chloroethane	<0.0045 *		0.0045	0.0013	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	10/17/19 17:48	10/25/19 19:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	10/17/19 17:48	10/25/19 19:54	1
4-Bromofluorobenzene (Surr)	88		75 - 131	10/17/19 17:48	10/25/19 19:54	1
Dibromofluoromethane	102		75 - 126	10/17/19 17:48	10/25/19 19:54	1
Toluene-d8 (Surr)	92		75 - 124	10/17/19 17:48	10/25/19 19:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.040	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B24**

**Lab Sample ID: 500-171902-5**

**Date Collected: 10/16/19 10:15**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 86.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2,4-Dinitrophenol	<0.75	*	0.75	0.65	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Acenaphthylene</b>	<b>0.014</b>	<b>J</b>	0.037	0.0049	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Anthracene</b>	<b>0.012</b>	<b>J</b>	0.037	0.0062	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Benzo[a]anthracene</b>	<b>0.098</b>		0.037	0.0050	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Benzo[a]pyrene</b>	<b>0.14</b>		0.037	0.0072	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Benzo[b]fluoranthene</b>	<b>0.21</b>		0.037	0.0080	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Benzo[g,h,i]perylene</b>	<b>0.051</b>		0.037	0.012	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Benzo[k]fluoranthene</b>	<b>0.080</b>		0.037	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Chrysene</b>	<b>0.12</b>		0.037	0.010	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Fluoranthene</b>	<b>0.23</b>		0.037	0.0069	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B24**

**Lab Sample ID: 500-171902-5**

Date Collected: 10/16/19 10:15

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.044</b>		0.037	0.0096	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Phenanthrene</b>	<b>0.074</b>		0.037	0.0052	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
Phenol	<0.19		0.19	0.082	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Pyrene</b>	<b>0.18</b>		0.037	0.0074	mg/Kg	☼	10/28/19 07:48	10/29/19 01:32	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol	93		31 - 143				10/28/19 07:48	10/29/19 01:32	1
2-Fluorobiphenyl	101		43 - 145				10/28/19 07:48	10/29/19 01:32	1
2-Fluorophenol	104		31 - 166				10/28/19 07:48	10/29/19 01:32	1
Nitrobenzene-d5	100		37 - 147				10/28/19 07:48	10/29/19 01:32	1
Phenol-d5	108		30 - 153				10/28/19 07:48	10/29/19 01:32	1
Terphenyl-d14	164	X	42 - 157				10/28/19 07:48	10/29/19 01:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.73</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Arsenic</b>	<b>8.7</b>		0.57	0.19	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Barium</b>	<b>49</b>		0.57	0.065	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Beryllium</b>	<b>0.77</b>		0.23	0.053	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Boron</b>	<b>12</b>		2.8	0.26	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Cadmium</b>	<b>0.33</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Calcium</b>	<b>79000</b>		110	19	mg/Kg	☼	10/29/19 16:54	10/31/19 11:57	10
<b>Chromium</b>	<b>13</b>		0.57	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Cobalt</b>	<b>14</b>		0.28	0.074	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Copper</b>	<b>26</b>		0.57	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Iron</b>	<b>17000</b>		11	5.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Lead</b>	<b>32</b>		0.28	0.13	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Magnesium</b>	<b>29000</b>		5.7	2.8	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Manganese</b>	<b>540</b>		0.57	0.082	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Nickel</b>	<b>30</b>	<b>^</b>	0.57	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Potassium</b>	<b>1800</b>		28	10	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Selenium</b>	<b>0.39</b>	<b>J</b>	0.57	0.33	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Silver</b>	<b>2.3</b>		0.28	0.073	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Sodium</b>	<b>390</b>		57	8.4	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Thallium</b>	<b>0.90</b>		0.57	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Vanadium</b>	<b>16</b>		0.28	0.067	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	1
<b>Zinc</b>	<b>71</b>	<b>B</b>	1.1	0.50	mg/Kg	☼	10/29/19 16:54	10/30/19 19:27	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		10/30/19 15:58	10/31/19 11:03	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:03	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/30/19 15:58	10/31/19 11:03	1
<b>Manganese</b>	<b>0.62</b>		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B24**

**Lab Sample ID: 500-171902-5**

Date Collected: 10/16/19 10:15

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.046	J	0.050	0.010	mg/L		10/26/19 18:35	10/29/19 16:28	1
Barium	0.28	J	0.50	0.050	mg/L		10/26/19 18:35	10/29/19 16:28	1
Beryllium	0.0050		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 16:28	1
Boron	0.16		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 16:28	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 16:28	1
Calcium	31		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:28	1
Chromium	0.10		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:28	1
Cobalt	0.040		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:28	1
Iron	110		0.40	0.20	mg/L		10/26/19 18:35	10/29/19 16:28	1
Lead	0.095		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 16:28	1
Manganese	0.58		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:28	1
Nickel	0.13		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:28	1
Potassium	24		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:28	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 16:28	1
Silver	<0.025		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:28	1
Zinc	0.43	J ^	0.50	0.020	mg/L		10/26/19 18:35	10/29/19 16:28	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		10/30/19 15:58	10/31/19 13:04	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		10/26/19 18:35	10/28/19 17:00	1
Thallium	0.0029		0.0020	0.0020	mg/L		10/26/19 18:35	10/28/19 17:00	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		10/29/19 09:55	10/30/19 11:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.019		0.017	0.0056	mg/Kg	☼	10/24/19 14:30	10/25/19 07:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.52		0.52	0.26	mg/Kg	☼	10/29/19 10:25	10/29/19 15:11	1
pH	8.7		0.2	0.2	SU			10/23/19 12:39	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B15**

**Lab Sample ID: 500-171902-7**

**Date Collected: 10/16/19 11:15**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 82.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0021		0.0021	0.00069	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00066	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00088	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
1,1-Dichloroethane	<0.0021		0.0021	0.00070	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
1,1-Dichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
1,2-Dichloroethane	<0.0051		0.0051	0.0016	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
1,2-Dichloropropane	<0.0021		0.0021	0.00053	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
1,3-Dichloropropene, Total	<0.0021		0.0021	0.00072	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
2-Butanone (MEK)	<0.0051		0.0051	0.0023	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
2-Hexanone	<0.0051		0.0051	0.0016	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
4-Methyl-2-pentanone (MIBK)	<0.0051		0.0051	0.0015	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Acetone	<0.021		0.021	0.0089	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Benzene	<0.0021		0.0021	0.00052	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Bromodichloromethane	<0.0021		0.0021	0.00042	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Bromoform	<0.0021		0.0021	0.00060	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Bromomethane	<0.0051		0.0051	0.0019	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Carbon disulfide	<0.0051		0.0051	0.0011	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Carbon tetrachloride	<0.0021		0.0021	0.00060	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Chlorobenzene	<0.0021		0.0021	0.00076	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Chloroethane	<0.0051 *		0.0051	0.0015	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Chloroform	<0.0021		0.0021	0.00071	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Chloromethane	<0.0051		0.0051	0.0021	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00057	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00062	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Dibromochloromethane	<0.0021		0.0021	0.00067	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Ethylbenzene	<0.0021		0.0021	0.00098	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00060	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Methylene Chloride	<0.0051		0.0051	0.0020	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Styrene	<0.0021		0.0021	0.00062	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Tetrachloroethene	<0.0021		0.0021	0.00070	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Toluene	<0.0021		0.0021	0.00052	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00091	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00072	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Trichloroethene	<0.0021		0.0021	0.00069	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Vinyl chloride	<0.0021		0.0021	0.00091	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1
Xylenes, Total	<0.0041		0.0041	0.00066	mg/Kg	☼	10/17/19 17:48	10/25/19 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	10/17/19 17:48	10/25/19 20:45	1
4-Bromofluorobenzene (Surr)	91		75 - 131	10/17/19 17:48	10/25/19 20:45	1
Dibromofluoromethane	103		75 - 126	10/17/19 17:48	10/25/19 20:45	1
Toluene-d8 (Surr)	94		75 - 124	10/17/19 17:48	10/25/19 20:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B15**

**Lab Sample ID: 500-171902-7**

**Date Collected: 10/16/19 11:15**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 82.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2,4-Dinitrophenol	<0.81	*	0.81	0.71	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2-Methylnaphthalene	<0.081		0.081	0.0074	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Acenaphthene</b>	<b>0.018</b>	<b>J</b>	0.040	0.0072	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Anthracene</b>	<b>0.049</b>		0.040	0.0067	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Benzo[a]anthracene</b>	<b>0.23</b>		0.040	0.0054	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Benzo[a]pyrene</b>	<b>0.23</b>		0.040	0.0078	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Benzo[b]fluoranthene</b>	<b>0.47</b>		0.040	0.0086	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Benzo[g,h,i]perylene</b>	<b>0.078</b>		0.040	0.013	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Benzo[k]fluoranthene</b>	<b>0.13</b>		0.040	0.012	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Chrysene</b>	<b>0.32</b>		0.040	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Fluoranthene</b>	<b>0.56</b>		0.040	0.0074	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Fluorene</b>	<b>0.013</b>	<b>J</b>	0.040	0.0056	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B15**

**Lab Sample ID: 500-171902-7**

Date Collected: 10/16/19 11:15

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 82.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.073</b>		0.040	0.010	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Naphthalene</b>	<b>0.016</b>	<b>J</b>	0.040	0.0062	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Phenanthrene</b>	<b>0.27</b>		0.040	0.0056	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
<b>Pyrene</b>	<b>0.41</b>		0.040	0.0080	mg/Kg	☼	10/28/19 07:48	10/29/19 02:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	116		31 - 143				10/28/19 07:48	10/29/19 02:27	1
2-Fluorobiphenyl	87		43 - 145				10/28/19 07:48	10/29/19 02:27	1
2-Fluorophenol	89		31 - 166				10/28/19 07:48	10/29/19 02:27	1
Nitrobenzene-d5	89		37 - 147				10/28/19 07:48	10/29/19 02:27	1
Phenol-d5	92		30 - 153				10/28/19 07:48	10/29/19 02:27	1
Terphenyl-d14	137		42 - 157				10/28/19 07:48	10/29/19 02:27	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	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Arsenic</b>	<b>9.1</b>		0.56	0.19	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Barium</b>	<b>54</b>		0.56	0.063	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Beryllium</b>	<b>0.84</b>		0.22	0.052	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Boron</b>	<b>11</b>		2.8	0.26	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Cadmium</b>	<b>0.22</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Calcium</b>	<b>31000</b>		11	1.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Chromium</b>	<b>20</b>		0.56	0.27	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Cobalt</b>	<b>13</b>		0.28	0.073	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Copper</b>	<b>29</b>		0.56	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Iron</b>	<b>22000</b>		11	5.8	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Lead</b>	<b>27</b>		0.28	0.13	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Magnesium</b>	<b>16000</b>		5.6	2.8	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Manganese</b>	<b>250</b>		0.56	0.080	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Nickel</b>	<b>36</b>	<b>^</b>	0.56	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Potassium</b>	<b>2500</b>		28	9.8	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Silver</b>	<b>3.3</b>		0.28	0.072	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Sodium</b>	<b>260</b>		56	8.2	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Thallium</b>	<b>1.2</b>		0.56	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Vanadium</b>	<b>24</b>		0.28	0.066	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	1
<b>Zinc</b>	<b>73</b>	<b>B</b>	1.1	0.49	mg/Kg	☼	10/29/19 16:54	10/30/19 19:35	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		10/30/19 15:58	10/31/19 11:11	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/30/19 15:58	10/31/19 11:11	1
Manganese	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:11	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B15**

**Lab Sample ID: 500-171902-7**

Date Collected: 10/16/19 11:15

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 82.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.039	J	0.050	0.010	mg/L		10/26/19 18:35	10/29/19 16:36	1
Barium	0.33	J	0.50	0.050	mg/L		10/26/19 18:35	10/29/19 16:36	1
Beryllium	0.0041		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 16:36	1
Boron	0.10		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 16:36	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 16:36	1
Calcium	35		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:36	1
Chromium	0.093		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:36	1
Cobalt	0.036		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:36	1
Iron	100		0.40	0.20	mg/L		10/26/19 18:35	10/29/19 16:36	1
Lead	0.17		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 16:36	1
Manganese	0.45		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:36	1
Nickel	0.12		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:36	1
Potassium	15		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:36	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 16:36	1
Silver	<0.025		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:36	1
Zinc	0.42	J ^	0.50	0.020	mg/L		10/26/19 18:35	10/29/19 16:36	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		10/30/19 15:58	10/31/19 13:13	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		10/26/19 18:35	10/28/19 17:02	1
Thallium	0.0022		0.0020	0.0020	mg/L		10/26/19 18:35	10/28/19 17:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	F1	0.00020	0.00020	mg/L		10/29/19 09:55	10/30/19 12:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038		0.019	0.0065	mg/Kg	☼	10/24/19 14:30	10/25/19 07:51	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	10/29/19 10:25	10/29/19 15:12	1
pH	8.0		0.2	0.2	SU			10/23/19 13:05	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B16**

**Lab Sample ID: 500-171902-8**

**Date Collected: 10/16/19 11:30**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 79.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Chloroethane	<0.0046 *		0.0046	0.0014	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1
Xylenes, Total	<0.0037		0.0037	0.00058	mg/Kg	☼	10/17/19 17:48	10/25/19 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	10/17/19 17:48	10/25/19 21:11	1
4-Bromofluorobenzene (Surr)	89		75 - 131	10/17/19 17:48	10/25/19 21:11	1
Dibromofluoromethane	103		75 - 126	10/17/19 17:48	10/25/19 21:11	1
Toluene-d8 (Surr)	91		75 - 124	10/17/19 17:48	10/25/19 21:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B16**

**Lab Sample ID: 500-171902-8**

Date Collected: 10/16/19 11:30

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2,4-Dinitrophenol	<0.82	*	0.82	0.72	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2-Chlorophenol	<0.20		0.20	0.070	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
<b>Benzo[a]anthracene</b>	<b>0.020</b>	<b>J</b>	0.040	0.0055	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
<b>Benzo[a]pyrene</b>	<b>0.021</b>	<b>J</b>	0.040	0.0079	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
<b>Benzo[b]fluoranthene</b>	<b>0.040</b>		0.040	0.0088	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Butyl benzyl phthalate	<0.20		0.20	0.078	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
<b>Chrysene</b>	<b>0.025</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Di-n-octyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
<b>Fluoranthene</b>	<b>0.040</b>		0.040	0.0076	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B16**

**Lab Sample ID: 500-171902-8**

Date Collected: 10/16/19 11:30

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.040		0.040	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
<b>Phenanthrene</b>	<b>0.011</b>	<b>J</b>	0.040	0.0057	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Phenol	<0.20		0.20	0.091	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
<b>Pyrene</b>	<b>0.031</b>	<b>J</b>	0.040	0.0081	mg/Kg	☼	10/28/19 07:48	10/29/19 02:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	83		31 - 143				10/28/19 07:48	10/29/19 02:54	1
2-Fluorobiphenyl	85		43 - 145				10/28/19 07:48	10/29/19 02:54	1
2-Fluorophenol	90		31 - 166				10/28/19 07:48	10/29/19 02:54	1
Nitrobenzene-d5	90		37 - 147				10/28/19 07:48	10/29/19 02:54	1
Phenol-d5	79		30 - 153				10/28/19 07:48	10/29/19 02:54	1
Terphenyl-d14	138		42 - 157				10/28/19 07:48	10/29/19 02:54	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.69</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Arsenic</b>	<b>6.5</b>		0.57	0.20	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Barium</b>	<b>81</b>		0.57	0.065	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Beryllium</b>	<b>1.0</b>		0.23	0.053	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Boron</b>	<b>8.9</b>		2.9	0.27	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Cadmium</b>	<b>0.13</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Calcium</b>	<b>5500</b>		11	1.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Chromium</b>	<b>25</b>		0.57	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Cobalt</b>	<b>12</b>		0.29	0.075	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Copper</b>	<b>27</b>		0.57	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Iron</b>	<b>23000</b>		11	5.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Lead</b>	<b>28</b>		0.29	0.13	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Magnesium</b>	<b>5100</b>		5.7	2.8	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Manganese</b>	<b>100</b>		0.57	0.083	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Nickel</b>	<b>37</b>	<b>^</b>	0.57	0.17	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Potassium</b>	<b>2200</b>		29	10	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Silver</b>	<b>4.0</b>		0.29	0.074	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Sodium</b>	<b>830</b>		57	8.4	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Thallium</b>	<b>1.7</b>		0.57	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Vanadium</b>	<b>34</b>		0.29	0.067	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	1
<b>Zinc</b>	<b>61</b>	<b>B</b>	1.1	0.50	mg/Kg	☼	10/29/19 16:54	10/30/19 19:39	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		10/30/19 15:58	10/31/19 11:15	1
Chromium	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:15	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/30/19 15:58	10/31/19 11:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B16**

**Lab Sample ID: 500-171902-8**

Date Collected: 10/16/19 11:30

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.24		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:15	1
Nickel	0.011	J	0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.046	J	0.050	0.010	mg/L		10/26/19 18:35	10/29/19 16:40	1
Barium	0.70		0.50	0.050	mg/L		10/26/19 18:35	10/29/19 16:40	1
Beryllium	0.0085		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 16:40	1
Boron	0.16		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 16:40	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 16:40	1
Calcium	30		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:40	1
Chromium	0.20		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:40	1
Cobalt	0.056		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:40	1
Iron	170		0.40	0.20	mg/L		10/26/19 18:35	10/29/19 16:40	1
Lead	0.14		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 16:40	1
Manganese	0.41		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:40	1
Nickel	0.21		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:40	1
Potassium	26		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:40	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 16:40	1
Silver	0.015	J	0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:40	1
Zinc	0.49	J	0.50	0.020	mg/L		10/26/19 18:35	10/30/19 18:14	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		10/30/19 15:58	10/31/19 13:17	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		10/26/19 18:35	10/28/19 17:03	1
Thallium	0.0038		0.0020	0.0020	mg/L		10/26/19 18:35	10/28/19 17:03	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		10/29/19 09:55	10/30/19 12:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.026		0.020	0.0068	mg/Kg	☼	10/24/19 14:30	10/25/19 07:54	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.28	mg/Kg	☼	10/29/19 10:25	10/29/19 15:12	1
pH	8.5		0.2	0.2	SU			10/23/19 13:22	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B14**

**Lab Sample ID: 500-171902-10**

**Date Collected: 10/16/19 11:50**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 88.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Benzene	<0.0017		0.0017	0.00045	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Bromodichloromethane	<0.0017		0.0017	0.00036	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Carbon tetrachloride	<0.0017		0.0017	0.00051	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Chloroethane	<0.0044 *		0.0044	0.0013	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Chloroform	<0.0017		0.0017	0.00061	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00053	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Ethylbenzene	<0.0017		0.0017	0.00084	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Tetrachloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	10/17/19 17:48	10/28/19 18:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 134	10/17/19 17:48	10/28/19 18:57	1
4-Bromofluorobenzene (Surr)	89		75 - 131	10/17/19 17:48	10/28/19 18:57	1
Dibromofluoromethane	97		75 - 126	10/17/19 17:48	10/28/19 18:57	1
Toluene-d8 (Surr)	95		75 - 124	10/17/19 17:48	10/28/19 18:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.18		0.18	0.039	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
1,2-Dichlorobenzene	<0.18		0.18	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
1,4-Dichlorobenzene	<0.18		0.18	0.047	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B14**

**Lab Sample ID: 500-171902-10**

Date Collected: 10/16/19 11:50

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.36		0.36	0.084	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2,4,6-Trichlorophenol	<0.36		0.36	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2,4-Dichlorophenol	<0.36		0.36	0.087	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2,4-Dinitrophenol	<0.74	*	0.74	0.64	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2,4-Dinitrotoluene	<0.18		0.18	0.058	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2,6-Dinitrotoluene	<0.18		0.18	0.072	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>2-Methylnaphthalene</b>	<b>0.050</b>	<b>J</b>	0.074	0.0067	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2-Methylphenol	<0.18		0.18	0.059	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
2-Nitrophenol	<0.36		0.36	0.086	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
3 & 4 Methylphenol	<0.18		0.18	0.061	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
4,6-Dinitro-2-methylphenol	<0.74		0.74	0.29	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
4-Chloroaniline	<0.74		0.74	0.17	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.043	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
4-Nitrophenol	<0.74		0.74	0.35	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Acenaphthene</b>	<b>0.039</b>		0.036	0.0066	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Acenaphthylene</b>	<b>0.014</b>	<b>J</b>	0.036	0.0048	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Anthracene</b>	<b>0.18</b>		0.036	0.0061	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Benzo[a]anthracene</b>	<b>0.39</b>		0.036	0.0049	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Benzo[a]pyrene</b>	<b>0.39</b>		0.036	0.0071	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Benzo[b]fluoranthene</b>	<b>0.58</b>		0.036	0.0079	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Benzo[g,h,i]perylene</b>	<b>0.11</b>		0.036	0.012	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Benzo[k]fluoranthene</b>	<b>0.20</b>		0.036	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.055	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.067	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Butyl benzyl phthalate	<0.18		0.18	0.070	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Carbazole	<0.18		0.18	0.091	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Chrysene</b>	<b>0.40</b>		0.036	0.010	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Dibenz(a,h)anthracene</b>	<b>0.039</b>		0.036	0.0071	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Dibenzofuran</b>	<b>0.054</b>	<b>J</b>	0.18	0.043	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Diethyl phthalate	<0.18		0.18	0.062	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Dimethyl phthalate	<0.18		0.18	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Di-n-butyl phthalate	<0.18		0.18	0.056	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Di-n-octyl phthalate	<0.18		0.18	0.060	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Fluoranthene</b>	<b>0.94</b>		0.036	0.0068	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Fluorene</b>	<b>0.054</b>		0.036	0.0051	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Hexachlorobenzene	<0.074		0.074	0.0085	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Hexachlorobutadiene	<0.18		0.18	0.058	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Hexachlorocyclopentadiene	<0.74		0.74	0.21	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Hexachloroethane	<0.18		0.18	0.056	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B14**

**Lab Sample ID: 500-171902-10**

Date Collected: 10/16/19 11:50

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 88.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.11</b>		0.036	0.0095	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Naphthalene</b>	<b>0.074</b>		0.036	0.0056	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Nitrobenzene	<0.036		0.036	0.0091	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
N-Nitrosodi-n-propylamine	<0.074		0.074	0.045	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Pentachlorophenol	<0.74		0.74	0.59	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Phenanthrene</b>	<b>0.70</b>		0.036	0.0051	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Phenol	<0.18		0.18	0.081	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
<b>Pyrene</b>	<b>0.78</b>		0.036	0.0073	mg/Kg	☼	10/28/19 07:48	10/29/19 03:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		31 - 143				10/28/19 07:48	10/29/19 03:48	1
2-Fluorobiphenyl	90		43 - 145				10/28/19 07:48	10/29/19 03:48	1
2-Fluorophenol	89		31 - 166				10/28/19 07:48	10/29/19 03:48	1
Nitrobenzene-d5	89		37 - 147				10/28/19 07:48	10/29/19 03:48	1
Phenol-d5	90		30 - 153				10/28/19 07:48	10/29/19 03:48	1
Terphenyl-d14	135		42 - 157				10/28/19 07:48	10/29/19 03:48	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.76</b>	J	1.1	0.21	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Arsenic</b>	<b>10</b>		0.54	0.18	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Barium</b>	<b>30</b>		0.54	0.061	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Beryllium</b>	<b>0.61</b>		0.21	0.050	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Boron</b>	<b>9.9</b>		2.7	0.25	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Cadmium</b>	<b>0.30</b>	B	0.11	0.019	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Calcium</b>	<b>76000</b>		110	18	mg/Kg	☼	10/29/19 16:54	10/31/19 12:01	10
<b>Chromium</b>	<b>12</b>		0.54	0.27	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Cobalt</b>	<b>10</b>		0.27	0.070	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Copper</b>	<b>29</b>		0.54	0.15	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Iron</b>	<b>17000</b>		11	5.6	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Lead</b>	<b>35</b>		0.27	0.12	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Magnesium</b>	<b>45000</b>		54	27	mg/Kg	☼	10/29/19 16:54	10/31/19 12:01	10
<b>Manganese</b>	<b>330</b>		0.54	0.078	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Nickel</b>	<b>26</b>	^	0.54	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Potassium</b>	<b>1700</b>		27	9.5	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Silver</b>	<b>2.1</b>		0.27	0.069	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Sodium</b>	<b>630</b>		54	7.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Thallium</b>	<b>0.79</b>		0.54	0.27	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Vanadium</b>	<b>17</b>		0.27	0.063	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	1
<b>Zinc</b>	<b>90</b>	B	1.1	0.47	mg/Kg	☼	10/29/19 16:54	10/30/19 19:47	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		10/30/19 15:58	10/31/19 11:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/30/19 15:58	10/31/19 11:31	1
Chromium	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:31	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:31	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B14**

**Lab Sample ID: 500-171902-10**

Date Collected: 10/16/19 11:50

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 88.4

**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		10/30/19 15:58	10/31/19 11:31	1
<b>Manganese</b>	<b>0.72</b>		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:31	1
Nickel	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.071</b>		0.050	0.010	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Barium</b>	<b>0.36</b>	J	0.50	0.050	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Beryllium</b>	<b>0.0061</b>		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Boron</b>	<b>0.17</b>		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 16:56	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Calcium</b>	<b>29</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Chromium</b>	<b>0.13</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Cobalt</b>	<b>0.054</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Iron</b>	<b>140</b>		0.40	0.20	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Lead</b>	<b>0.17</b>		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Manganese</b>	<b>0.72</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Nickel</b>	<b>0.18</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Potassium</b>	<b>24</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 16:56	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Silver</b>	<b>0.011</b>	J	0.025	0.010	mg/L		10/26/19 18:35	10/29/19 16:56	1
<b>Zinc</b>	<b>0.63</b>		0.50	0.020	mg/L		10/26/19 18:35	10/30/19 18:22	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		10/30/19 15:58	10/31/19 13:34	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		10/26/19 18:35	10/28/19 17:08	1
<b>Thallium</b>	<b>0.0043</b>		0.0020	0.0020	mg/L		10/26/19 18:35	10/29/19 19:40	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		10/29/19 09:55	10/30/19 12:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.039</b>		0.019	0.0062	mg/Kg	☼	10/24/19 14:30	10/25/19 08:02	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	10/29/19 10:25	10/29/19 15:14	1
<b>pH</b>	<b>8.8</b>		0.2	0.2	SU			10/23/19 13:39	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B18**

**Lab Sample ID: 500-171902-11**

**Date Collected: 10/16/19 11:55**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 83.9**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0020		0.0020	0.00066	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Acetone	<0.020		0.020	0.0086	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Chloroethane	<0.0049 *		0.0049	0.0015	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Trichloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	10/17/19 17:48	10/28/19 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	10/17/19 17:48	10/28/19 19:23	1
4-Bromofluorobenzene (Surr)	91		75 - 131	10/17/19 17:48	10/28/19 19:23	1
Dibromofluoromethane	101		75 - 126	10/17/19 17:48	10/28/19 19:23	1
Toluene-d8 (Surr)	94		75 - 124	10/17/19 17:48	10/28/19 19:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B18**

**Lab Sample ID: 500-171902-11**

Date Collected: 10/16/19 11:55

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2,4-Dinitrophenol	<0.76	*	0.76	0.66	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2-Methylnaphthalene	<0.076		0.076	0.0069	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Acenaphthene</b>	<b>0.043</b>		0.037	0.0068	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Acenaphthylene	<0.037		0.037	0.0050	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Anthracene</b>	<b>0.11</b>		0.037	0.0063	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Benzo[a]anthracene</b>	<b>0.28</b>		0.037	0.0051	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Benzo[a]pyrene</b>	<b>0.28</b>		0.037	0.0073	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Benzo[b]fluoranthene</b>	<b>0.41</b>		0.037	0.0081	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Benzo[g,h,i]perylene</b>	<b>0.093</b>		0.037	0.012	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Benzo[k]fluoranthene</b>	<b>0.18</b>		0.037	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Chrysene</b>	<b>0.32</b>		0.037	0.010	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Dibenz(a,h)anthracene</b>	<b>0.030</b>	J	0.037	0.0073	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Fluoranthene</b>	<b>0.77</b>		0.037	0.0070	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Fluorene</b>	<b>0.032</b>	J	0.037	0.0053	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B18**

**Lab Sample ID: 500-171902-11**

Date Collected: 10/16/19 11:55

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 83.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.088</b>		0.037	0.0098	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Naphthalene</b>	<b>0.011</b>	<b>J</b>	0.037	0.0058	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Phenanthrene</b>	<b>0.45</b>		0.037	0.0052	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Pyrene</b>	<b>0.55</b>		0.037	0.0075	mg/Kg	☼	10/28/19 07:48	10/29/19 00:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol	72		31 - 143				10/28/19 07:48	10/29/19 00:11	1
2-Fluorobiphenyl	67		43 - 145				10/28/19 07:48	10/29/19 00:11	1
2-Fluorophenol	70		31 - 166				10/28/19 07:48	10/29/19 00:11	1
Nitrobenzene-d5	72		37 - 147				10/28/19 07:48	10/29/19 00:11	1
Phenol-d5	67		30 - 153				10/28/19 07:48	10/29/19 00:11	1
Terphenyl-d14	102		42 - 157				10/28/19 07:48	10/29/19 00:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.74</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Arsenic</b>	<b>8.8</b>		0.57	0.19	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Barium</b>	<b>59</b>		0.57	0.065	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Beryllium</b>	<b>0.80</b>		0.23	0.053	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Boron</b>	<b>9.9</b>		2.8	0.27	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Cadmium</b>	<b>0.26</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Calcium</b>	<b>30000</b>		11	1.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Chromium</b>	<b>19</b>		0.57	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Cobalt</b>	<b>15</b>		0.28	0.075	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Copper</b>	<b>30</b>		0.57	0.16	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Iron</b>	<b>22000</b>		11	5.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Lead</b>	<b>34</b>		0.28	0.13	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Magnesium</b>	<b>15000</b>		5.7	2.8	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Manganese</b>	<b>360</b>		0.57	0.083	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Nickel</b>	<b>38</b>	<b>^</b>	0.57	0.17	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Potassium</b>	<b>2000</b>		28	10	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Selenium</b>	<b>0.34</b>	<b>J</b>	0.57	0.33	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Silver</b>	<b>3.0</b>		0.28	0.073	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Sodium</b>	<b>520</b>		57	8.4	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Thallium</b>	<b>1.2</b>		0.57	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Vanadium</b>	<b>24</b>		0.28	0.067	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	1
<b>Zinc</b>	<b>72</b>	<b>B</b>	1.1	0.50	mg/Kg	☼	10/29/19 16:54	10/30/19 19:51	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		10/30/19 15:58	10/31/19 11:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/30/19 15:58	10/31/19 11:35	1
Chromium	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:35	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:35	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B18**

**Lab Sample ID: 500-171902-11**

Date Collected: 10/16/19 11:55

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 83.9

**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		10/30/19 15:58	10/31/19 11:35	1
<b>Manganese</b>	<b>0.37</b>		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:35	1
Nickel	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:35	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		10/26/19 18:35	10/29/19 17:00	1
<b>Barium</b>	<b>0.49</b>	J	0.50	0.050	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Beryllium</b>	<b>0.0077</b>		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Boron</b>	<b>0.21</b>		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 17:00	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Calcium</b>	<b>31</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Chromium</b>	<b>0.17</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Cobalt</b>	<b>0.054</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Iron</b>	<b>180</b>		0.40	0.20	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Lead</b>	<b>0.14</b>		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Manganese</b>	<b>0.60</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Nickel</b>	<b>0.20</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Potassium</b>	<b>31</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:00	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Silver</b>	<b>0.014</b>	J	0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:00	1
<b>Zinc</b>	<b>0.46</b>	J ^	0.50	0.020	mg/L		10/26/19 18:35	10/29/19 17:00	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		10/30/19 15:58	10/31/19 13:39	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		10/26/19 18:35	10/28/19 17:09	1
<b>Thallium</b>	<b>0.0038</b>		0.0020	0.0020	mg/L		10/26/19 18:35	10/29/19 19:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00025</b>		0.00020	0.00020	mg/L		10/29/19 09:55	10/30/19 12:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.027</b>		0.019	0.0063	mg/Kg	☼	10/24/19 14:30	10/25/19 08:04	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.28	mg/Kg	☼	10/29/19 10:25	10/29/19 15:14	1
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			10/23/19 13:48	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B19**

**Lab Sample ID: 500-171902-12**

**Date Collected: 10/16/19 12:10**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 78.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0021		0.0021	0.00070	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
1,1,2,2-Tetrachloroethane	<0.0021		0.0021	0.00067	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
1,1,2-Trichloroethane	<0.0021		0.0021	0.00090	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
1,1-Dichloroethane	<0.0021		0.0021	0.00072	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
1,1-Dichloroethene	<0.0021		0.0021	0.00072	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
1,2-Dichloroethane	<0.0052		0.0052	0.0016	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
1,2-Dichloropropane	<0.0021		0.0021	0.00054	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
1,3-Dichloropropene, Total	<0.0021		0.0021	0.00074	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
2-Butanone (MEK)	<0.0052		0.0052	0.0023	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
2-Hexanone	<0.0052		0.0052	0.0016	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
4-Methyl-2-pentanone (MIBK)	<0.0052		0.0052	0.0016	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Acetone	<0.021		0.021	0.0091	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Benzene	<0.0021		0.0021	0.00054	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Bromodichloromethane	<0.0021		0.0021	0.00043	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Bromoform	<0.0021		0.0021	0.00061	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Bromomethane	<0.0052		0.0052	0.0020	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Carbon disulfide	<0.0052		0.0052	0.0011	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Carbon tetrachloride	<0.0021		0.0021	0.00061	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Chlorobenzene	<0.0021		0.0021	0.00077	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Chloroethane	<0.0052 *		0.0052	0.0016	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Chloroform	<0.0021		0.0021	0.00073	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Chloromethane	<0.0052		0.0052	0.0021	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
cis-1,2-Dichloroethene	<0.0021		0.0021	0.00059	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
cis-1,3-Dichloropropene	<0.0021		0.0021	0.00063	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Dibromochloromethane	<0.0021		0.0021	0.00069	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Ethylbenzene	<0.0021		0.0021	0.0010	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Methyl tert-butyl ether	<0.0021		0.0021	0.00062	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Methylene Chloride	<0.0052		0.0052	0.0021	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Styrene	<0.0021		0.0021	0.00063	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Tetrachloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Toluene	<0.0021		0.0021	0.00053	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
trans-1,2-Dichloroethene	<0.0021		0.0021	0.00093	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
trans-1,3-Dichloropropene	<0.0021		0.0021	0.00074	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Trichloroethene	<0.0021		0.0021	0.00071	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Vinyl chloride	<0.0021		0.0021	0.00093	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1
Xylenes, Total	<0.0042		0.0042	0.00067	mg/Kg	☼	10/17/19 17:48	10/28/19 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	10/17/19 17:48	10/28/19 19:48	1
4-Bromofluorobenzene (Surr)	90		75 - 131	10/17/19 17:48	10/28/19 19:48	1
Dibromofluoromethane	98		75 - 126	10/17/19 17:48	10/28/19 19:48	1
Toluene-d8 (Surr)	96		75 - 124	10/17/19 17:48	10/28/19 19:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B19**

**Lab Sample ID: 500-171902-12**

**Date Collected: 10/16/19 12:10**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 78.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2,4-Dinitrophenol	<0.83	*	0.83	0.73	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2-Methylnaphthalene	<0.083		0.083	0.0076	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
2-Nitrophenol	<0.41		0.41	0.098	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Benzo[a]anthracene	<0.041		0.041	0.0056	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.076	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Fluoranthene	<0.041		0.041	0.0077	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B19**

**Lab Sample ID: 500-171902-12**

Date Collected: 10/16/19 12:10

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Naphthalene	<0.041		0.041	0.0064	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.051	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Phenanthrene	<0.041		0.041	0.0058	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Phenol	<0.21		0.21	0.092	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Pyrene	<0.041		0.041	0.0082	mg/Kg	☼	10/28/19 07:48	10/29/19 04:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	82		31 - 143				10/28/19 07:48	10/29/19 04:15	1
2-Fluorobiphenyl	89		43 - 145				10/28/19 07:48	10/29/19 04:15	1
2-Fluorophenol	98		31 - 166				10/28/19 07:48	10/29/19 04:15	1
Nitrobenzene-d5	95		37 - 147				10/28/19 07:48	10/29/19 04:15	1
Phenol-d5	98		30 - 153				10/28/19 07:48	10/29/19 04:15	1
Terphenyl-d14	157		42 - 157				10/28/19 07:48	10/29/19 04:15	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.77	J	1.2	0.23	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Arsenic	8.3		0.59	0.20	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Barium	70		0.59	0.068	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Beryllium	0.94		0.24	0.055	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Boron	10		3.0	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Cadmium	0.098	J B	0.12	0.021	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Calcium	15000		12	2.0	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Chromium	24		0.59	0.29	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Cobalt	13		0.30	0.078	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Copper	28		0.59	0.17	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Iron	23000		12	6.2	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Lead	18		0.30	0.14	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Magnesium	11000		5.9	2.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Manganese	210		0.59	0.086	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Nickel	36	^	0.59	0.17	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Potassium	2400		30	10	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Silver	3.6		0.30	0.077	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Sodium	590		59	8.8	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Thallium	1.4		0.59	0.30	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Vanadium	29		0.30	0.070	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	1
Zinc	66	B	1.2	0.52	mg/Kg	☼	10/29/19 16:54	10/30/19 19:55	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		10/30/19 15:58	10/31/19 11:39	1
Chromium	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:39	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		10/30/19 15:58	10/31/19 11:39	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B19**

**Lab Sample ID: 500-171902-12**

Date Collected: 10/16/19 12:10

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.33		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:39	1
Nickel	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.046	J	0.050	0.010	mg/L		10/26/19 18:35	10/29/19 17:04	1
Barium	0.61		0.50	0.050	mg/L		10/26/19 18:35	10/29/19 17:04	1
Beryllium	0.0085		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 17:04	1
Boron	0.19		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 17:04	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 17:04	1
Calcium	30		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:04	1
Chromium	0.19		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:04	1
Cobalt	0.046		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:04	1
Iron	170		0.40	0.20	mg/L		10/26/19 18:35	10/29/19 17:04	1
Lead	0.083		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 17:04	1
Manganese	0.47		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:04	1
Nickel	0.20		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:04	1
Potassium	29		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:04	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 17:04	1
Silver	0.013	J	0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:04	1
Zinc	0.53		0.50	0.020	mg/L		10/26/19 18:35	10/30/19 18:26	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		10/30/19 15:58	10/31/19 13:43	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		10/26/19 18:35	10/28/19 17:10	1
Thallium	0.0045		0.0020	0.0020	mg/L		10/26/19 18:35	10/29/19 19:42	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		10/29/19 09:55	10/30/19 12:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.020	0.0066	mg/Kg	☼	10/24/19 14:30	10/25/19 08:06	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.27	mg/Kg	☼	10/29/19 10:25	10/29/19 15:15	1
pH	8.6		0.2	0.2	SU			10/23/19 13:56	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B20**

**Lab Sample ID: 500-171902-13**

**Date Collected: 10/16/19 12:30**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 81.6**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Chloroethane	<0.0039 *		0.0039	0.0012	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	10/17/19 17:48	10/29/19 12:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	10/17/19 17:48	10/29/19 12:14	1
4-Bromofluorobenzene (Surr)	101		75 - 131	10/17/19 17:48	10/29/19 12:14	1
Dibromofluoromethane	102		75 - 126	10/17/19 17:48	10/29/19 12:14	1
Toluene-d8 (Surr)	97		75 - 124	10/17/19 17:48	10/29/19 12:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B20**

**Lab Sample ID: 500-171902-13**

Date Collected: 10/16/19 12:30

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
<b>2-Methylnaphthalene</b>	<b>0.015</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
<b>Chrysene</b>	<b>0.021</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
<b>Fluoranthene</b>	<b>0.013</b>	<b>J</b>	0.039	0.0073	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B20**

**Lab Sample ID: 500-171902-13**

Date Collected: 10/16/19 12:30

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 81.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.039		0.039	0.010	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
<b>Naphthalene</b>	<b>0.0094</b>	<b>J</b>	0.039	0.0060	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
<b>Phenanthrene</b>	<b>0.041</b>		0.039	0.0055	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
<b>Pyrene</b>	<b>0.022</b>	<b>J</b>	0.039	0.0078	mg/Kg	☼	10/28/19 07:48	10/28/19 23:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92		31 - 143				10/28/19 07:48	10/28/19 23:45	1
2-Fluorobiphenyl	86		43 - 145				10/28/19 07:48	10/28/19 23:45	1
2-Fluorophenol	85		31 - 166				10/28/19 07:48	10/28/19 23:45	1
Nitrobenzene-d5	81		37 - 147				10/28/19 07:48	10/28/19 23:45	1
Phenol-d5	83		30 - 153				10/28/19 07:48	10/28/19 23:45	1
Terphenyl-d14	123		42 - 157				10/28/19 07:48	10/28/19 23:45	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.59</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Arsenic</b>	<b>9.4</b>		0.60	0.21	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Barium</b>	<b>39</b>		0.60	0.068	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Beryllium</b>	<b>0.71</b>		0.24	0.056	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Boron</b>	<b>13</b>		3.0	0.28	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Calcium</b>	<b>50000</b>		120	20	mg/Kg	☼	10/29/19 16:54	10/31/19 12:05	10
<b>Chromium</b>	<b>19</b>		0.60	0.30	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Cobalt</b>	<b>16</b>		0.30	0.079	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Copper</b>	<b>34</b>		0.60	0.17	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Iron</b>	<b>22000</b>		12	6.2	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Lead</b>	<b>19</b>		0.30	0.14	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Magnesium</b>	<b>20000</b>		6.0	3.0	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Manganese</b>	<b>330</b>		0.60	0.087	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Nickel</b>	<b>39</b>	<b>^</b>	0.60	0.17	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Potassium</b>	<b>2500</b>		30	11	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
Selenium	<0.60		0.60	0.35	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Silver</b>	<b>2.5</b>		0.30	0.077	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Sodium</b>	<b>1400</b>		60	8.9	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Thallium</b>	<b>1.1</b>		0.60	0.30	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Vanadium</b>	<b>21</b>		0.30	0.071	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	1
<b>Zinc</b>	<b>63</b>	<b>B</b>	1.2	0.53	mg/Kg	☼	10/29/19 16:54	10/30/19 19:59	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		10/30/19 15:58	10/31/19 11:44	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/30/19 15:58	10/31/19 11:44	1
Chromium	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:44	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

**Client Sample ID: 2774V-10-B20**

**Lab Sample ID: 500-171902-13**

Date Collected: 10/16/19 12:30

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 81.6

**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		10/30/19 15:58	10/31/19 11:44	1
Manganese	3.4		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:44	1
Nickel	0.016	J	0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.073		0.050	0.010	mg/L		10/26/19 18:35	10/29/19 17:08	1
Barium	0.62		0.50	0.050	mg/L		10/26/19 18:35	10/29/19 17:08	1
Beryllium	0.0085		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 17:08	1
Boron	0.23		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 17:08	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 17:08	1
Calcium	62		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:08	1
Chromium	0.20		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:08	1
Cobalt	0.11		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:08	1
Iron	200		0.40	0.20	mg/L		10/26/19 18:35	10/29/19 17:08	1
Lead	0.15		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 17:08	1
Manganese	1.7		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:08	1
Nickel	0.28		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:08	1
Potassium	36		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:08	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 17:08	1
Silver	0.018	J	0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:08	1
Zinc	0.48	J ^	0.50	0.020	mg/L		10/26/19 18:35	10/29/19 17:08	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		10/30/19 15:58	10/31/19 13:47	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		10/26/19 18:35	10/28/19 17:11	1
Thallium	0.0037		0.0020	0.0020	mg/L		10/26/19 18:35	10/29/19 19:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00033		0.00033	0.00033	mg/L		10/29/19 09:55	10/30/19 12:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025		0.019	0.0064	mg/Kg	☼	10/24/19 14:30	10/25/19 08:08	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.28	mg/Kg	☼	10/29/19 10:25	10/29/19 15:15	1
pH	8.5		0.2	0.2	SU			10/23/19 14:05	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

## Qualifiers

### GC/MS VOA

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

### GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
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
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

## 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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171902-1

## Laboratory: Eurofins TestAmerica, Chicago


Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
7470A	7470A	Solid	Mercury
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

### 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: 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: <u>AE7-27A</u> Project No.: <u>PTB/WO: 184-006/27A</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>Will Ulewicz</u>	COC No.: <u>1</u> of <u>2</u> Lab Job No.: <u>500-171902</u> Sample Temp: <u>29.1/12</u>
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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.  
 \*\*\* If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide.

					ANALYSES																																	
Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAS	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization																						
1	2774V-10-B21	10-16	0940	S	X	X					X	X	X	X	X																							
2	2774V-10-B22		0945																																			
3	2774V-10-B22 DUP		0950																																			
4	2774V-10-B23		1005																																			
5	2774V-10-B24		1015																																			
6	2774V-10-B25		1025																																			
7	2774V-10-B15		1115																																			
8	2774V-10-B10		1130																																			
9	2774V-10-B17		1135																																			
10	2774V-10-B14		1150																																			
11	2774V-10-B18		1155																																			

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

					ANALYSES												Comments																							
Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAS	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization																								

Relinquished by: 	Date/Time: 10-16-19	Received by: ANGESHA BALAKRISHNAW	Date/Time: 10-16-19 5:00pm
Relinquished by: ANGESHA BALAKRISHNAW	Date/Time: 10-17-19 9:20am	Received by: 	Date/Time: 10/17/19 0920
Relinquished by: P. Neal	Date/Time: 10/17/19 1045	Received by: 	Date/Time: 10/17/19 1045





# 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: 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: <u>AE7-27A</u> Project No.: <u>PTB/NO:184-006/27A</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>Will Ulewicz</u>	COC No.: <u>2</u> of <u>2</u> Lab Job No.: <u>500-171902</u> Sample Temp.: <u>29.1/12</u>
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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.  
 \*\*\* If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide.

ANALYSES												
VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization	

**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	*** Cyanide	pH	% Solids	Waste Characterization	Comments
12	2774V-10-B19	10-16	1210	S	X	X					X	X	X	X	X		
13	2774V-10-B20	↓	1230	↓	↓	↓					↓	↓	↓	↓	↓		
	<del>2774V-10-B</del>	↓		↓	↓	↓					↓	↓	↓	↓	↓		
14	TRIP BLANK #2	↓			X												

Relinquished by: <u>[Signature]</u>	Date/Time: <u>10-16-19</u>	Received by: <u>ANEESHA BALAKRISHNAN</u>	Date/Time: <u>10-16-19 5:00pm</u>
Relinquished by: <u>Aneesha Balakrishnan</u>	Date/Time: <u>10-17-19 9:30am</u>	Received by: <u>P. Neal</u>	Date/Time: <u>10/17/19 0720</u>
Relinquished by: <u>P. Neal</u>	Date/Time: <u>10/17/19 1045</u>	Received by: <u>[Signature]</u>	Date/Time: <u>10/17/19 1045</u>



# Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

## 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 368 (Pulaski Road) Office Phone Number, if available: \_\_\_\_\_

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

7659 South Pulaski Road

City: Chicago State: IL Zip Code: 60652

County: Cook Township: Chicago City

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

Latitude: 41.75302 Longitude: - 87.72186  
(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: \_\_\_\_\_

Approximate Start Date (mm/dd/yyyy): TBD Approximate End Date (mm/dd/yyyy): TBD

Estimated Volume of debris (cu. Yd.): 50

### 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: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@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: 847-705-4122

Contact: Irma Romiti-Johnson

Email, if available: Irma.Romiti-Johnson@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.

Uncontaminated Soil 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 2774V-11-B01 AND -B02 WERE SAMPLED ADJACENT TO SITE 2774V-11. SEE TABLE 3b AND FIGURE 3 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]:

EUROFINS/TEST AMERICA ANALYTICAL REPORT - TEST AMERICA JOB ID NUMBER: 500-171904-1

**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 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: 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:

Jan 9, 2020  
Date:



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.

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

**ANALYTICAL PARAMETERS**

<b>Volatile Organic Compounds (mg/kg)</b>
1,1,1-Trichloroethane
1,1,1,2-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
<b>Semivolatile Organic Compounds (mg/kg)</b>
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

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

**ANALYTICAL PARAMETERS**

<b>Semivolatile Organic Compounds (mg/kg)</b>
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
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

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

**ANALYTICAL PARAMETERS**

<b>Semivolatile Organic Compounds (mg/kg)</b>
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
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Vanadium
Zinc
Cyanide
<b>TCLP/SPLP Inorganics (mg/L)</b>
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc
Cyanide

**ISGS Site 2774V-11**

**Chicago Fire Department**

Sample ID	2774V-11-B01	2774V-11-B02	Maximum Allowable Concentration				
Sample Depth (ft)	0-6	0-6					
Sample Date	10/16/2019	10/16/2019					
PID	0	0					
Sample pH	8.4	8.6					
Matrix	Soil	Soil	<sup>1</sup> Most Stringent	<sup>2</sup> Outside a Populated Area	<sup>3</sup> Within a Populated non-Metropolitan Statistical Area	<sup>4</sup> Within Chicago Corporate Limits	<sup>5</sup> Within a Metropolitan Statistical Area
<b>No Contaminants of Concern Noted.</b>							



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-171904-1  
Client Project/Site: IDOT - AE7-27

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
10/31/2019 5:24:51 PM

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.*

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

**Client Sample ID: 2774V-11-B01**

**Lab Sample ID: 500-171904-1**

**Date Collected: 10/16/19 10:50**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 77.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
<b>Acetone</b>	<b>0.014</b>	<b>J</b>	0.018	0.0078	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Chloroethane	<0.0045	*	0.0045	0.0013	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	10/17/19 17:48	10/27/19 21:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	10/17/19 17:48	10/27/19 21:23	1
4-Bromofluorobenzene (Surr)	94		75 - 131	10/17/19 17:48	10/27/19 21:23	1
Dibromofluoromethane	107		75 - 126	10/17/19 17:48	10/27/19 21:23	1
Toluene-d8 (Surr)	87		75 - 124	10/17/19 17:48	10/27/19 21:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.045	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

**Client Sample ID: 2774V-11-B01**

**Lab Sample ID: 500-171904-1**

**Date Collected: 10/16/19 10:50**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 77.8**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2-Methylnaphthalene	<0.083		0.083	0.0076	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
2-Nitrophenol	<0.41		0.41	0.098	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Benzo[a]anthracene	<0.041		0.041	0.0056	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Fluoranthene	<0.041		0.041	0.0077	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

**Client Sample ID: 2774V-11-B01**

**Lab Sample ID: 500-171904-1**

Date Collected: 10/16/19 10:50

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 77.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Naphthalene	<0.041		0.041	0.0064	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Phenanthrene	<0.041		0.041	0.0058	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Phenol	<0.21		0.21	0.092	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Pyrene	<0.041		0.041	0.0082	mg/Kg	☼	10/28/19 07:46	10/28/19 21:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		31 - 143				10/28/19 07:46	10/28/19 21:35	1
2-Fluorobiphenyl	81		43 - 145				10/28/19 07:46	10/28/19 21:35	1
2-Fluorophenol	91		31 - 166				10/28/19 07:46	10/28/19 21:35	1
Nitrobenzene-d5	73		37 - 147				10/28/19 07:46	10/28/19 21:35	1
Phenol-d5	78		30 - 153				10/28/19 07:46	10/28/19 21:35	1
Terphenyl-d14	101		42 - 157				10/28/19 07:46	10/28/19 21:35	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.61	J F1	1.2	0.23	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Arsenic	6.9		0.60	0.21	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Barium	74		0.60	0.069	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Beryllium	1.0		0.24	0.056	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Boron	11	F1	3.0	0.28	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Cadmium	0.12	B F1	0.12	0.022	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Calcium	3200	B F2	12	2.0	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Chromium	24		0.60	0.30	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Cobalt	14		0.30	0.079	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Copper	27		0.60	0.17	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Iron	23000		12	6.3	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Lead	20	F1	0.30	0.14	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Magnesium	4800		6.0	3.0	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Manganese	280		0.60	0.088	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Nickel	39		0.60	0.18	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Potassium	2400	F1	30	11	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Selenium	0.80	F1	0.60	0.36	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Silver	4.0		0.30	0.078	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Sodium	5400		60	8.9	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Thallium	1.3		0.60	0.30	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Vanadium	31		0.30	0.071	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	1
Zinc	71		1.2	0.53	mg/Kg	☼	10/29/19 16:48	10/30/19 15:57	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		10/30/19 15:58	10/31/19 11:48	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/30/19 15:58	10/31/19 11:48	1
Chromium	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:48	1
Iron	<0.40		0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:48	1

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# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

**Client Sample ID: 2774V-11-B01**

**Lab Sample ID: 500-171904-1**

Date Collected: 10/16/19 10:50

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 77.8

**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		10/30/19 15:58	10/31/19 11:48	1
<b>Manganese</b>	<b>0.15</b>		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:48	1
Nickel	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.075</b>		0.050	0.010	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Barium</b>	<b>1.1</b>		0.50	0.050	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Beryllium</b>	<b>0.014</b>		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Boron</b>	<b>0.27</b>		0.10	0.050	mg/L		10/26/19 18:35	10/29/19 17:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Calcium</b>	<b>27</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Chromium</b>	<b>0.34</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Cobalt</b>	<b>0.11</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Iron</b>	<b>300</b>		0.40	0.20	mg/L		10/26/19 18:35	10/30/19 17:26	1
<b>Lead</b>	<b>0.16</b>		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Manganese</b>	<b>1.2</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Nickel</b>	<b>0.39</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Potassium</b>	<b>46</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:12	1
Selenium	<0.050		0.050	0.020	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Silver</b>	<b>0.022 J</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:12	1
<b>Zinc</b>	<b>0.89</b>		0.50	0.020	mg/L		10/26/19 18:35	10/30/19 17:26	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		10/30/19 15:58	10/31/19 13:52	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		10/26/19 18:35	10/28/19 17:12	1
<b>Thallium</b>	<b>0.0071</b>		0.0020	0.0020	mg/L		10/26/19 18:35	10/29/19 19:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00050		0.00050	0.00050	mg/L		10/29/19 09:55	10/30/19 12:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.030</b>		0.019	0.0064	mg/Kg	☼	10/23/19 14:00	10/24/19 11:37	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.60		0.60	0.30	mg/Kg	☼	10/29/19 10:25	10/29/19 15:19	1
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			10/23/19 11:31	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

**Client Sample ID: 2774V-11-B02**

**Lab Sample ID: 500-171904-2**

**Date Collected: 10/16/19 11:00**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 80.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Chloroethane	<0.0046 *		0.0046	0.0014	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	10/17/19 17:48	10/27/19 21:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		70 - 134	10/17/19 17:48	10/27/19 21:48	1
4-Bromofluorobenzene (Surr)	87		75 - 131	10/17/19 17:48	10/27/19 21:48	1
Dibromofluoromethane	107		75 - 126	10/17/19 17:48	10/27/19 21:48	1
Toluene-d8 (Surr)	84		75 - 124	10/17/19 17:48	10/27/19 21:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

**Client Sample ID: 2774V-11-B02**

**Lab Sample ID: 500-171904-2**

**Date Collected: 10/16/19 11:00**

**Matrix: Solid**

**Date Received: 10/17/19 10:45**

**Percent Solids: 80.2**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2,4-Dimethylphenol	<0.41		0.41	0.15	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2-Methylnaphthalene	<0.082		0.082	0.0075	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2-Methylphenol	<0.21		0.21	0.065	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
2-Nitrophenol	<0.41		0.41	0.096	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Acenaphthene	<0.041		0.041	0.0073	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Fluorene	<0.041		0.041	0.0057	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Hexachlorobenzene	<0.082		0.082	0.0095	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

**Client Sample ID: 2774V-11-B02**

**Lab Sample ID: 500-171904-2**

Date Collected: 10/16/19 11:00

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 80.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	<0.041		0.041	0.011	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Phenanthrene	<0.041		0.041	0.0057	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Pyrene	<0.041		0.041	0.0081	mg/Kg	☼	10/28/19 07:46	10/28/19 22:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		31 - 143				10/28/19 07:46	10/28/19 22:03	1
2-Fluorobiphenyl	73		43 - 145				10/28/19 07:46	10/28/19 22:03	1
2-Fluorophenol	86		31 - 166				10/28/19 07:46	10/28/19 22:03	1
Nitrobenzene-d5	66		37 - 147				10/28/19 07:46	10/28/19 22:03	1
Phenol-d5	72		30 - 153				10/28/19 07:46	10/28/19 22:03	1
Terphenyl-d14	95		42 - 157				10/28/19 07:46	10/28/19 22:03	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.71	J	1.2	0.24	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Arsenic	7.1		0.62	0.21	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Barium	94		0.62	0.071	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Beryllium	1.2		0.25	0.058	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Boron	10		3.1	0.29	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Cadmium	0.096	J B	0.12	0.022	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Calcium	3000	B	12	2.1	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Chromium	28		0.62	0.31	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Cobalt	15		0.31	0.081	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Copper	31		0.62	0.17	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Iron	25000		12	6.5	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Lead	18		0.31	0.14	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Magnesium	5300		6.2	3.1	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Manganese	230		0.62	0.090	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Nickel	46		0.62	0.18	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Potassium	2500		31	11	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Selenium	<0.62		0.62	0.36	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Silver	4.2		0.31	0.080	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Sodium	3100		62	9.2	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Thallium	1.6		0.62	0.31	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Vanadium	35		0.31	0.073	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	1
Zinc	71		1.2	0.54	mg/Kg	☼	10/29/19 16:48	10/30/19 16:25	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		10/30/19 15:58	10/31/19 11:52	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		10/30/19 15:58	10/31/19 11:52	1
Chromium	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:52	1
Iron	<0.40	F1	0.40	0.20	mg/L		10/30/19 15:58	10/31/19 11:52	1

Eurofins TestAmerica, Chicago



# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

**Client Sample ID: 2774V-11-B02**

**Lab Sample ID: 500-171904-2**

Date Collected: 10/16/19 11:00

Matrix: Solid

Date Received: 10/17/19 10:45

Percent Solids: 80.2

**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		10/30/19 15:58	10/31/19 11:52	1
<b>Manganese</b>	<b>0.11</b>		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:52	1
Nickel	<0.025		0.025	0.010	mg/L		10/30/19 15:58	10/31/19 11:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.071</b>		0.050	0.010	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Barium</b>	<b>1.4</b>		0.50	0.050	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Beryllium</b>	<b>0.016</b>		0.0040	0.0040	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Boron</b>	<b>0.29</b>	<b>F1</b>	0.10	0.050	mg/L		10/26/19 18:35	10/29/19 17:16	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Calcium</b>	<b>33</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Chromium</b>	<b>0.36</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Cobalt</b>	<b>0.11</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Iron</b>	<b>300</b>		0.40	0.20	mg/L		10/26/19 18:35	10/30/19 17:30	1
<b>Lead</b>	<b>0.16</b>		0.0075	0.0075	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Manganese</b>	<b>0.96</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Nickel</b>	<b>0.42</b>		0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Potassium</b>	<b>44</b>		2.5	0.50	mg/L		10/26/19 18:35	10/29/19 17:16	1
Selenium	<0.050	<b>F1</b>	0.050	0.020	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Silver</b>	<b>0.024</b>	<b>J</b>	0.025	0.010	mg/L		10/26/19 18:35	10/29/19 17:16	1
<b>Zinc</b>	<b>0.77</b>		0.50	0.020	mg/L		10/26/19 18:35	10/30/19 17:30	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		10/30/19 15:58	10/31/19 13:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060	<b>F1</b>	0.0060	0.0060	mg/L		10/26/19 18:35	10/28/19 17:13	1
<b>Thallium</b>	<b>0.0070</b>		0.0020	0.0020	mg/L		10/26/19 18:35	10/29/19 19:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00050		0.00050	0.00050	mg/L		10/29/19 09:55	10/30/19 12:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.028</b>		0.020	0.0068	mg/Kg	☼	10/23/19 14:00	10/24/19 11:39	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.52		0.52	0.26	mg/Kg	☼	10/29/19 10:25	10/29/19 15:20	1
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			10/23/19 11:40	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

## Qualifiers

### GC/MS VOA

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

### 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.

### Metals

Qualifier	Qualifier Description
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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
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.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-27

Job ID: 500-171904-1

## Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
7470A	7470A	Solid	Mercury
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



# 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>AET-27A</u> Project No.: <u>PTB/WO: 184-006/27A</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>Will Ulewicz</u>	COC No.: <u>1</u> of <u>1</u> Lab Job No.: <u>500-171904</u> Sample Temp.: <u>29.12</u>
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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.  
 \*\*\* If total cyanide exceeds MAC, run ASTM D3987 (Neutral Leach) cyanide.

ANALYSES											Matrix Key:
VOCS	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	
X	X					X	X	X	X	X	
↓	↓					↓	↓	↓	↓	↓	

**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
1	2774V-11-1301	10-16	1050	S
2	2774V-11-1302	10-16	1100	↓

Relinquished by: <u>[Signature]</u>	Date/Time: <u>10-16-19</u>	Received by: <u>[Signature]</u>	Date/Time: <u>10-16-19 5:00pm</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>10-17-19 9:20am</u>	Received by: <u>[Signature]</u>	Date/Time: <u>10/17/19 0920</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>10/17/19 1045</u>	Received by: <u>[Signature]</u>	Date/Time: <u>10/17/19 1045</u>