



# 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: FAI 90/94 (I-90/94) Office Phone Number, if available: \_\_\_\_\_

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

Both sides of I-90/94 between West Jackson Boulevard (300 South) and Monroe Street (100 South)

City: Chicago State: IL Zip Code: 60661

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: 41.87928 Longitude: - 87.64584

(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: 0316375140 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

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

Estimated Volume of debris (cu. Yd.): \_\_\_\_\_

### 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 2615V2-1-B01, -B02, -B08, -B16, -B17, -B18, -B19, -B21, -B22, -B23, -B25, -B28, -B30, -B31, -B32, -B33, -B35, -B36, -B37, -B38, -B39, -B40 AND -B41 WERE SAMPLED ADJACENT TO SITE 2615V2-1. SEE TABLE 3a AND FIGURE 2 OF THE FINAL PRELIMINARY SITE INVESTIGATION REPORT.

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

EUROFINS/TEST AMERICA ANALYTICAL REPORT - TEST AMERICA JOB ID NUMBERS: 500-166759-1, 500-166838-1, 500-174811-1, 500-174692-1, 500-174691-1 AND 500-174685-1, 500-174684-1 AND 500-174684-2.

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

I, Savo Radulovic, L.P.G (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 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 30, 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 2615V2-1

ROW

Sample ID	2615V2-1-B01-1	2615V2-1-B01-2	2615V2-1-B01-3	2615V2-1-B02-1	2615V2-1-B02-2	Maximum Allowable Concentration				
Sample Depth (ft)	0-8	8-16	16-24	0-8	8-16	<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
Sample Date	7/15/2019	7/15/2019	7/15/2019	7/16/2019	7/16/2019					
PID	0	0	0	0	0					
Sample pH	8.6	8.4	8.6	8.6	8.6					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	0.32	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	0.25	1,2	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	ND	0.32	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	J 0.03	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.4	7.4	6.4	8.5	8.2	11.3	--	11.3	--	13

Sample ID	2615V2-1-B02-3	2615V2-1-B08-1	2615V2-1-B08-2	2615V2-1-B08-3	2615V2-1-B08-4	Maximum Allowable Concentration				
Sample Depth (ft)	16-21	0-8	8-16	16-24	24-32	<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
Sample Date	7/16/2019	7/15/2019	7/15/2019	7/15/2019	7/15/2019					
PID	0	0	0	0	0					
Sample pH	8.8	8.2	8.1	7.6	8.5					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	1.4	1,2,3,4,7	ND	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	1.1	1,2,3	ND	ND	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	1.5	1,2,3	ND	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	0.11	1,2	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.5	5.1	7.6	7.6	6.4	11.3	--	11.3	--	13

Sample ID	2615V2-1-B08-5	2615V2-1-B16-1	2615V2-1-B16-2	2615V2-1-B17-1	2615V2-1-B17-2	Maximum Allowable Concentration				
Sample Depth (ft)	32-40	0-5	5-10	0-6	6-12	<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
Sample Date	7/15/2019	12/9/2019	12/9/2019	12/9/2019	12/9/2019					
PID	0	0	0	0	0					
Sample pH	8.5	7.8	8.4	7.6	7.6					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	0.15	J 0.034	ND	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	0.13	1,2	ND	ND	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	0.17	J 0.03	ND	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	J 0.027	ND	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.5	7.8	5.7	7.6	7.9	11.3	--	11.3	--	13

ISGS Site 2615V2-1  
ROW

Sample ID	2615V2-1-B17-3	2615V2-1-B17-4	2615V2-1-B18-1	2615V2-1-B18-2	2615V2-1-B18-3	Maximum Allowable Concentration				
Sample Depth (ft)	12-18	18-24	0-6	6-12	12-18	<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
Sample Date	12/9/2019	12/9/2019	12/9/2019	12/9/2019	12/9/2019					
PID	0	0	0	0	0					
Sample pH	7.7	7.8	7.8	7.6	7.7					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	0.39	ND	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	0.34	1,2	ND	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	0.52	ND	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	J 0.016	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.7	6.8	2.4	7.3	7.1	11.3	--	11.3	--	13

Sample ID	2615V2-1-B18-4 DUP	2615V2-1-B19-1	2615V2-1-B19-2	2615V2-1-B19-3	2615V2-1-B19-4	Maximum Allowable Concentration				
Sample Depth (ft)	18-24	0-6	6-12	12-18	18-24	<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
Sample Date	12/9/2019	12/9/2019	12/9/2019	12/9/2019	12/9/2019					
PID	0	0	0	0	0					
Sample pH	7.7	7.7	7.8	7.5	7.5					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	ND	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	ND	ND	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.2	8	6.6	8.8	7.2	11.3	--	11.3	--	13

Sample ID	2615V2-1-B21-1	2615V2-1-B21-2	2615V2-1-B21-2 DUP	2615V2-1-B21-3	2615V2-1-B21-4	Maximum Allowable Concentration				
Sample Depth (ft)	0-6	6-12	6-12	12-18	18-24	<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
Sample Date	12/9/2019	12/9/2019	12/9/2019	12/9/2019	12/9/2019					
PID	0	0	0	0	0					
Sample pH	8	7.6	7.6	7.6	7.7					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	0.43	ND	ND	ND	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	0.37	1,2	ND	ND	ND	0.09	0.09	0.98	1.3	2.1
Benzo(k)fluoranthene	0.25	ND	ND	ND	ND	9	--	--	--	--
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.8	8.6	7.9	7	7.1	11.3	--	11.3	--	13

## ISGS Site 2615V2-1

## ROW

Sample ID	2615V2-1-B22-1	2615V2-1-B22-2	2615V2-1-B22-3	2615V2-1-B22-4	2615V2-1-B23-1	Maximum Allowable Concentration				
Sample Depth (ft)	0-6	6-12	12-18	18-24	0-6	<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
Sample Date	12/6/2019	12/6/2019	12/6/2019	12/6/2019	12/6/2019					
PID	0	0	0	0	0					
Sample pH	7.6	7.4	8	8.4	7.6					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Volatile Organic Compounds (mg/kg)</b>										
Tetrachloroethene	ND	ND	ND	ND	ND	0.06	--	--	--	--
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	ND	0.25	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	ND	0.29	1,2	0.09	0.09	0.98	1.3
Benzo(b)fluoranthene	ND	ND	ND	ND	0.33	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	ND	J 0.036	0.09	0.09	0.15	0.2	0.42
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	0.13	0.9	0.9	0.9	0.9	1.6
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.6	9.4	6.9	8.7	7.5	11.3	--	11.3	--	13

Sample ID	2615V2-1-B23-2	2615V2-1-B23-3	2615V2-1-B23-4	2615V2-1-B23-4 DUP	2615V2-1-B25-1	Maximum Allowable Concentration				
Sample Depth (ft)	6-12	12-18	18-24	18-24	0-6	<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
Sample Date	12/6/2019	12/6/2019	12/6/2019	12/6/2019	12/6/2019					
PID	0	0	0	0	0					
Sample pH	7.6	8.2	8.3	7.8	8.3					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	1.2	1,2,3,4,7	1.1	1,2,3	0.9	0.9	0.9
Benzo(a)pyrene	ND	ND	ND	1.2	1,2,3	1.1	1,2,3	0.09	0.09	0.98
Benzo(b)fluoranthene	ND	ND	ND	1.1	1,2,3	1.4	1,2,3	0.9	0.9	0.9
Dibenzo(a,h)anthracene	ND	ND	ND	0.099	1,2	0.12	1,2	0.09	0.09	0.15
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	9.3	7.2	7.3	6.5	6.6	11.3	--	11.3	--	13

## ISGS Site 2615V2-1

## ROW

Sample ID	2615V2-1-B25-2	2615V2-1-B25-3	2615V2-1-B25-4	2615V2-1-B28-1	2615V2-1-B28-2	Maximum Allowable Concentration				
Sample Depth (ft)	6-12	12-18	18-24	0-6	6-12	<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
Sample Date	12/6/2019	12/6/2019	12/6/2019	12/6/2019	12/6/2019					
PID	0	0	0	0	0					
Sample pH	8.1	8	8	7.6	7.4					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	0.27	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	0.28	1,2	ND	0.09	0.09	0.98	1.3
Benzo(b)fluoranthene	ND	ND	ND	0.41	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	0.044	ND	0.09	0.09	0.15	0.2	0.42
Indeno(1,2,3-cd)pyrene	ND	ND	ND	0.11	ND	0.9	0.9	0.9	0.9	1.6
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	8	6.9	7.4	8.6	7.8	11.3	--	11.3	--	13

ISGS Site 2615V2-1  
ROW

Sample ID	2615V2-1-B28-3	2615V2-1-B28-4	2615V2-1-B28-4 DUP	2615V2-1-B30-1	2615V2-1-B30-2	Maximum Allowable Concentration				
Sample Depth (ft)	12-18	18-24	18-24	0-6	6-12	<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
Sample Date	12/6/2019	12/6/2019	12/6/2019	12/6/2019	12/6/2019					
PID	0	0	0	0	0					
Sample pH	7.6	7.6	7.8	8.2	7.6					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	0.085	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	0.12	1,2	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	ND	0.14	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.4	8.6	7.9	8.7	7.8	11.3	--	11.3	--	13

Sample ID	2615V2-1-B30-3	2615V2-1-B30-4	2615V2-1-B31-1	2615V2-1-B31-2	2615V2-1-B31-2 DUP	Maximum Allowable Concentration				
Sample Depth (ft)	12-18	18-24	0-6	6-12	6-12	<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
Sample Date	12/6/2019	12/6/2019	12/6/2019	12/6/2019	12/6/2019					
PID	0	0	0	0	0					
Sample pH	7.9	8	7.7	7.9	7.7					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	0.42	ND	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	0.41	1,2	ND	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	0.27	ND	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	0.075	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	8	8	8.4	8.3	8.6	11.3	--	11.3	--	13

Sample ID	2615V2-1-B31-3	2615V2-1-B31-4	2615V2-1-B32	2615V2-1-B33	2615V2-1-B35-1	Maximum Allowable Concentration				
Sample Depth (ft)	12-18	18-24	0-2	0-2	0-6	<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
Sample Date	12/6/2019	12/6/2019	12/6/2019	12/6/2019	12/5/2019					
PID	0	0	0	0	0					
Sample pH	7.6	7.7	7.5	7.6	7.6					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	0.24	0.065	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	0.32	1,2	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	ND	0.26	0.1	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	0.042	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.7	7.9	11	7.4	8.7	11.3	--	11.3	--	13

ISGS Site 2615V2-1  
ROW

Sample ID	2615V2-1-B35-2	2615V2-1-B35-3	2615V2-1-B35-4	2615V2-1-B35-4 DUP	2615V2-1-B36-1	Maximum Allowable Concentration				
Sample Depth (ft)	6-12	12-18	18-24	18-24	0-6	<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
Sample Date	12/5/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019					
PID	0	0	0	0	0					
Sample pH	7.7	7.7	7.7	7.8	7.5					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	ND	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	ND	ND	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.7	8.1	7.3	7.4	8.8	11.3	--	11.3	--	13

Sample ID	2615V2-1-B36-2	2615V2-1-B36-3	2615V2-1-B36-4	2615V2-1-B37	2615V2-1-B38-1	Maximum Allowable Concentration				
Sample Depth (ft)	6-12	12-18	18-24	0-5	0-6	<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
Sample Date	12/5/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019					
PID	0	0	0	0	0					
Sample pH	7.5	7.7	7.9	7.8	7.8					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	0.046	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	ND	J 0.016	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	ND	ND	J 0.02	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	7.8	7.7	7.2	7.7	8.5	11.3	--	11.3	--	13

Sample ID	2615V2-1-B38-2	2615V2-1-B38-3	2615V2-1-B38-4	2615V2-1-B39-1	2615V2-1-B39-1 DUP	Maximum Allowable Concentration				
Sample Depth (ft)	6-12	12-18	18-24	0-6	0-6	<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
Sample Date	12/5/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019					
PID	0	0	0	0	0					
Sample pH	7.7	7.6	7.7	7.7	7.5					
Matrix	Soil	Soil	Soil	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>										
Benzo(a)anthracene	ND	ND	ND	ND	0.21	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	ND	0.28 1,2	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	ND	ND	0.34	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	ND	J 0.028	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>										
Arsenic	8.1	7.9	7.5	6.8	7.5	11.3	--	11.3	--	13

ISGS Site 2615V2-1  
ROW

Sample ID	2615V2-1-B39-2	2615V2-1-B39-3	2615V2-1-B39-4	2615V2-1-B40-1	2615V2-1-B40-2	Maximum Allowable Concentration					
Sample Depth (ft)	6-12	12-18	18-24	0-6	6-12	<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	
Sample Date	12/5/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019						
PID	0	0	0	0	0						
Sample pH	7.7	7.9	7.8	8.1	7.8						
Matrix	Soil	Soil	Soil	Soil	Soil						
<b>Semivolatile Organic Compounds (mg/kg)</b>											
Benzo(a)anthracene	ND	ND	ND	1.3	1,2,3,4,7	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	ND	1.3	1,2,3	ND	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	ND	1.4	1,2,3	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	ND	0.24	1,2,3,4,7	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>											
Arsenic	8.2	7.6	7.3	7.7	10	11.3	--	11.3	--	13	

Sample ID	2615V2-1-B40-3	2615V2-1-B40-4	2615V2-1-B41-1	2615V2-1-B41-2	2615V2-1-B41-3	Maximum Allowable Concentration					
Sample Depth (ft)	12-18	18-24	0-6	6-12	12-18	<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	
Sample Date	12/5/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019						
PID	0	0	0	0	0						
Sample pH	7.8	7.7	8	8	7.8						
Matrix	Soil	Soil	Soil	Soil	Soil						
<b>Semivolatile Organic Compounds (mg/kg)</b>											
Benzo(a)anthracene	ND	ND	0.8	ND	ND	0.9	0.9	0.9	1.1	1.8	
Benzo(a)pyrene	ND	ND	0.74	1,2	ND	0.09	0.09	0.98	1.3	2.1	
Benzo(b)fluoranthene	ND	ND	1	1,2,3	ND	0.9	0.9	0.9	1.5	2.1	
Dibenzo(a,h)anthracene	ND	ND	0.11	1,2	ND	0.09	0.09	0.15	0.2	0.42	
<b>Inorganic Compounds, Total (mg/kg)</b>											
Arsenic	12	1,3	7.4	7.8	9.2	8.6	11.3	--	11.3	--	13

Sample ID	2615V2-1-B41-3 DUP	2615V2-1-B41-4	Maximum Allowable Concentration				
Sample Depth (ft)	12-18	18-24	<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
Sample Date	12/5/2019	12/5/2019					
PID	0	0					
Sample pH	7.8	7.6					
Matrix	Soil	Soil					
<b>Semivolatile Organic Compounds (mg/kg)</b>							
Benzo(a)anthracene	ND	ND	0.9	0.9	0.9	1.1	1.8
Benzo(a)pyrene	ND	ND	0.09	0.09	0.98	1.3	2.1
Benzo(b)fluoranthene	ND	ND	0.9	0.9	0.9	1.5	2.1
Dibenzo(a,h)anthracene	ND	ND	0.09	0.09	0.15	0.2	0.42
<b>Inorganic Compounds, Total (mg/kg)</b>							
Arsenic	7.5	7.2	11.3	--	11.3	--	13

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-166759-1  
Client Project/Site: IDOT - AE7-20  
Revision: 1

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

Attn: Ms. Colleen Grey



Authorized for release by:  
8/29/2019 12:20:10 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 - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-1**

**Lab Sample ID: 500-166759-1**

**Date Collected: 07/15/19 09:57**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**Percent Solids: 81.4**

**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	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
<b>Acetone</b>	<b>0.016</b>	<b>J</b>	0.017	0.0075	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Chloromethane	<0.0043	*	0.0043	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Vinyl chloride	<0.0017	*	0.0017	0.00076	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	07/16/19 16:00	07/24/19 17:41	1
4-Bromofluorobenzene (Surr)	110		75 - 131	07/16/19 16:00	07/24/19 17:41	1
Dibromofluoromethane	108		75 - 126	07/16/19 16:00	07/24/19 17:41	1
Toluene-d8 (Surr)	102		75 - 124	07/16/19 16:00	07/24/19 17:41	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	☼	07/19/19 07:39	07/22/19 20:05	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2,2'-oxybis[1-chloropropane]	<0.20	F1	0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-1**

**Lab Sample ID: 500-166759-1**

Date Collected: 07/15/19 09:57

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 81.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2,4-Dinitrophenol	<0.82	F1	0.82	0.72	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
<b>2-Methylnaphthalene</b>	<b>0.047</b>	<b>J</b>	0.082	0.0075	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
4-Nitrophenol	<0.82	F2	0.82	0.39	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Benzo[g,h,i]perylene	<0.040	F1	0.040	0.013	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.042	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
<b>Chrysene</b>	<b>0.034</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Dibenz(a,h)anthracene	<0.040	F1	0.040	0.0079	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
<b>Fluorene</b>	<b>0.0092</b>	<b>J</b>	0.040	0.0057	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Hexachlorocyclopentadiene	<0.82	F1	0.82	0.23	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Hexachloroethane	<0.20	F1	0.20	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-1**

**Lab Sample ID: 500-166759-1**

Date Collected: 07/15/19 09:57

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 81.4

## 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	F1	0.040	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
<b>Naphthalene</b>	<b>0.017</b>	<b>J</b>	0.040	0.0063	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
<b>Phenanthrene</b>	<b>0.14</b>		0.040	0.0057	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
<b>Pyrene</b>	<b>0.022</b>	<b>J</b>	0.040	0.0081	mg/Kg	☼	07/19/19 07:39	07/22/19 20:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	117		31 - 143				07/19/19 07:39	07/22/19 20:05	1
2-Fluorobiphenyl	83		43 - 145				07/19/19 07:39	07/22/19 20:05	1
2-Fluorophenol	70		31 - 166				07/19/19 07:39	07/22/19 20:05	1
Nitrobenzene-d5	73		37 - 147				07/19/19 07:39	07/22/19 20:05	1
Phenol-d5	68		30 - 153				07/19/19 07:39	07/22/19 20:05	1
Terphenyl-d14	95		42 - 157				07/19/19 07:39	07/22/19 20:05	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1	F1	1.1	0.22	mg/Kg	☼	07/18/19 08:14	07/19/19 20:25	1
<b>Arsenic</b>	<b>7.4</b>		0.57	0.19	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Barium</b>	<b>36</b>		0.57	0.065	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Beryllium</b>	<b>0.66</b>		0.23	0.053	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Boron</b>	<b>18</b>		2.8	0.26	mg/Kg	☼	07/18/19 08:14	07/19/19 20:25	1
<b>Cadmium</b>	<b>0.16</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Calcium</b>	<b>47000</b>	<b>B</b>	57	9.6	mg/Kg	☼	07/18/19 08:14	07/19/19 20:29	5
<b>Chromium</b>	<b>17</b>		0.57	0.28	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Cobalt</b>	<b>14</b>		0.28	0.074	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Copper</b>	<b>29</b>		0.57	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Iron</b>	<b>21000</b>		11	5.9	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Lead</b>	<b>15</b>	<b>F1</b>	0.28	0.13	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Magnesium</b>	<b>22000</b>		5.7	2.8	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Manganese</b>	<b>320</b>	<b>B</b>	0.57	0.082	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Nickel</b>	<b>37</b>		0.57	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Potassium</b>	<b>3300</b>		28	10	mg/Kg	☼	07/18/19 08:14	07/19/19 20:25	1
Selenium	<0.57	^	0.57	0.33	mg/Kg	☼	07/18/19 08:14	07/19/19 20:25	1
<b>Silver</b>	<b>3.3</b>		0.28	0.073	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Sodium</b>	<b>590</b>		57	8.4	mg/Kg	☼	07/18/19 08:14	07/19/19 20:25	1
<b>Thallium</b>	<b>1.1</b>	<b>F1</b>	0.57	0.28	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Vanadium</b>	<b>20</b>		0.28	0.067	mg/Kg	☼	07/18/19 08:14	07/18/19 15:05	1
<b>Zinc</b>	<b>45</b>	<b>F1</b>	1.1	0.50	mg/Kg	☼	07/18/19 08:14	07/19/19 20:25	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		07/19/19 14:37	07/22/19 18:23	1
Barium	<0.50		0.50	0.050	mg/L		07/19/19 14:37	07/22/19 18:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/19/19 14:37	07/22/19 18:23	1
<b>Boron</b>	<b>0.12</b>		0.10	0.050	mg/L		07/19/19 14:37	07/23/19 10:59	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-1**

**Lab Sample ID: 500-166759-1**

Date Collected: 07/15/19 09:57

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 81.4

## 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		07/19/19 14:37	07/22/19 18:23	1
<b>Calcium</b>	<b>14</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:23	1
Chromium	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:23	1
Cobalt	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:23	1
<b>Iron</b>	<b>1.7</b>		0.40	0.20	mg/L		07/19/19 14:37	07/22/19 18:23	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/19/19 14:37	07/22/19 18:23	1
<b>Manganese</b>	<b>0.028</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:23	1
Nickel	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:23	1
<b>Potassium</b>	<b>3.2</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:23	1
Selenium	<0.050		0.050	0.020	mg/L		07/19/19 14:37	07/22/19 18:23	1
Silver	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:23	1
<b>Zinc</b>	<b>0.28</b>	<b>J B</b>	0.50	0.020	mg/L		07/19/19 14:37	07/22/19 18:23	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		07/19/19 14:37	07/22/19 20:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/19/19 14:37	07/22/19 20:12	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		07/22/19 10:40	07/23/19 09:35	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.025</b>	<b>B</b>	0.019	0.0063	mg/Kg	☼	07/22/19 14:50	07/23/19 10:02	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.29	mg/Kg	☼	07/25/19 14:25	07/25/19 17:20	1
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			07/18/19 14:41	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-2**

**Lab Sample ID: 500-166759-2**

**Date Collected: 07/15/19 10:05**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**Percent Solids: 80.6**

**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	☼	07/16/19 16:00	07/24/19 18:07	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Chloromethane	<0.0045 *		0.0045	0.0018	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Vinyl chloride	<0.0018 *		0.0018	0.00080	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	07/16/19 16:00	07/24/19 18:07	1
4-Bromofluorobenzene (Surr)	107		75 - 131	07/16/19 16:00	07/24/19 18:07	1
Dibromofluoromethane	108		75 - 126	07/16/19 16:00	07/24/19 18:07	1
Toluene-d8 (Surr)	101		75 - 124	07/16/19 16:00	07/24/19 18:07	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	☼	07/19/19 07:39	07/22/19 12:22	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-2**

**Lab Sample ID: 500-166759-2**

Date Collected: 07/15/19 10:05

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
<b>2-Methylnaphthalene</b>	<b>0.029</b>	<b>J</b>	0.083	0.0075	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
<b>Acenaphthene</b>	<b>0.0079</b>	<b>J</b>	0.041	0.0074	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
<b>Benzo[g,h,i]perylene</b>	<b>0.014</b>	<b>J</b>	0.041	0.013	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
<b>Chrysene</b>	<b>0.016</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-2**

**Lab Sample ID: 500-166759-2**

Date Collected: 07/15/19 10:05

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 80.6

**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	<0.041		0.041	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
<b>Naphthalene</b>	<b>0.0071</b>	<b>J</b>	0.041	0.0063	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
<b>Phenanthrene</b>	<b>0.063</b>		0.041	0.0057	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	1
<b>Pyrene</b>	<b>0.012</b>	<b>J</b>	0.041	0.0081	mg/Kg	☼	07/19/19 07:39	07/22/19 12:22	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	98		31 - 143				07/19/19 07:39	07/22/19 12:22	1
2-Fluorobiphenyl	87		43 - 145				07/19/19 07:39	07/22/19 12:22	1
2-Fluorophenol	73		31 - 166				07/19/19 07:39	07/22/19 12:22	1
Nitrobenzene-d5	76		37 - 147				07/19/19 07:39	07/22/19 12:22	1
Phenol-d5	75		30 - 153				07/19/19 07:39	07/22/19 12:22	1
Terphenyl-d14	96		42 - 157				07/19/19 07:39	07/22/19 12:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.27</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	07/18/19 08:14	07/19/19 21:13	1
<b>Arsenic</b>	<b>7.4</b>		0.59	0.20	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Barium</b>	<b>45</b>		0.59	0.067	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Beryllium</b>	<b>0.74</b>		0.24	0.055	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Boron</b>	<b>22</b>		2.9	0.27	mg/Kg	☼	07/18/19 08:14	07/19/19 21:13	1
<b>Cadmium</b>	<b>0.17</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Calcium</b>	<b>54000</b>	<b>B</b>	59	10	mg/Kg	☼	07/18/19 08:14	07/19/19 21:17	5
<b>Chromium</b>	<b>19</b>		0.59	0.29	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Cobalt</b>	<b>14</b>		0.29	0.077	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Copper</b>	<b>25</b>		0.59	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Iron</b>	<b>23000</b>		12	6.1	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Lead</b>	<b>14</b>		0.29	0.14	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Magnesium</b>	<b>24000</b>		5.9	2.9	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Manganese</b>	<b>360</b>	<b>B</b>	0.59	0.085	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Nickel</b>	<b>37</b>		0.59	0.17	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Potassium</b>	<b>3900</b>		29	10	mg/Kg	☼	07/18/19 08:14	07/19/19 21:13	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	07/18/19 08:14	07/22/19 19:33	1
<b>Silver</b>	<b>2.9</b>		0.29	0.076	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Sodium</b>	<b>230</b>		59	8.7	mg/Kg	☼	07/18/19 08:14	07/19/19 21:13	1
<b>Thallium</b>	<b>0.90</b>		0.59	0.29	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Vanadium</b>	<b>23</b>		0.29	0.070	mg/Kg	☼	07/18/19 08:14	07/18/19 15:25	1
<b>Zinc</b>	<b>53</b>		1.2	0.52	mg/Kg	☼	07/18/19 08:14	07/19/19 21:13	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		07/19/19 14:37	07/22/19 18:27	1
<b>Barium</b>	<b>0.062</b>	<b>J</b>	0.50	0.050	mg/L		07/19/19 14:37	07/22/19 18:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/19/19 14:37	07/22/19 18:27	1
<b>Boron</b>	<b>0.10</b>		0.10	0.050	mg/L		07/19/19 14:37	07/23/19 11:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-2**

**Lab Sample ID: 500-166759-2**

Date Collected: 07/15/19 10:05

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 80.6

**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		07/19/19 14:37	07/22/19 18:27	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:27	1
Chromium	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:27	1
Cobalt	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:27	1
<b>Iron</b>	<b>4.1</b>		0.40	0.20	mg/L		07/19/19 14:37	07/22/19 18:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/19/19 14:37	07/22/19 18:27	1
<b>Manganese</b>	<b>0.045</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:27	1
Nickel	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:27	1
<b>Potassium</b>	<b>4.4</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:27	1
Selenium	<0.050		0.050	0.020	mg/L		07/19/19 14:37	07/22/19 18:27	1
Silver	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:27	1
<b>Zinc</b>	<b>0.042</b>	<b>J B</b>	0.50	0.020	mg/L		07/19/19 14:37	07/22/19 18:27	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		07/19/19 14:37	07/22/19 20:15	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/19/19 14:37	07/22/19 20:15	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		07/22/19 10:40	07/23/19 09:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.023</b>	<b>B</b>	0.019	0.0064	mg/Kg	☼	07/22/19 14:50	07/23/19 10:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.40		0.40	0.20	mg/Kg	☼	07/25/19 14:25	07/25/19 17:21	1
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			07/18/19 14:45	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-3**

**Lab Sample ID: 500-166759-3**

**Date Collected: 07/15/19 10:15**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**Percent Solids: 80.8**

**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	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
<b>Acetone</b>	<b>0.23</b>	<b>E</b>	0.017	0.0075	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Chloromethane	<0.0043	*	0.0043	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Vinyl chloride	<0.0017	*	0.0017	0.00077	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	07/16/19 16:00	07/24/19 18:32	1
4-Bromofluorobenzene (Surr)	104		75 - 131	07/16/19 16:00	07/24/19 18:32	1
Dibromofluoromethane	108		75 - 126	07/16/19 16:00	07/24/19 18:32	1
Toluene-d8 (Surr)	102		75 - 124	07/16/19 16:00	07/24/19 18:32	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	☼	07/19/19 07:39	07/22/19 12:46	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-3**

**Lab Sample ID: 500-166759-3**

Date Collected: 07/15/19 10:15

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
<b>2-Methylnaphthalene</b>	<b>0.023</b>	<b>J</b>	0.082	0.0075	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
<b>Benzo[g,h,i]perylene</b>	<b>0.014</b>	<b>J</b>	0.040	0.013	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
<b>Chrysene</b>	<b>0.017</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-3**

**Lab Sample ID: 500-166759-3**

Date Collected: 07/15/19 10:15

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 80.8

**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	<0.040		0.040	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
<b>Naphthalene</b>	<b>0.0067</b>	<b>J</b>	0.040	0.0062	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
<b>Phenanthrene</b>	<b>0.058</b>		0.040	0.0057	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	1
<b>Pyrene</b>	<b>0.014</b>	<b>J</b>	0.040	0.0081	mg/Kg	☼	07/19/19 07:39	07/22/19 12:46	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	90		31 - 143				07/19/19 07:39	07/22/19 12:46	1
2-Fluorobiphenyl	88		43 - 145				07/19/19 07:39	07/22/19 12:46	1
2-Fluorophenol	74		31 - 166				07/19/19 07:39	07/22/19 12:46	1
Nitrobenzene-d5	81		37 - 147				07/19/19 07:39	07/22/19 12:46	1
Phenol-d5	74		30 - 153				07/19/19 07:39	07/22/19 12:46	1
Terphenyl-d14	95		42 - 157				07/19/19 07:39	07/22/19 12:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.26</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	07/18/19 08:14	07/19/19 21:21	1
<b>Arsenic</b>	<b>6.4</b>		0.61	0.21	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Barium</b>	<b>44</b>		0.61	0.070	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Beryllium</b>	<b>0.70</b>		0.24	0.057	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Boron</b>	<b>21</b>		3.1	0.28	mg/Kg	☼	07/18/19 08:14	07/19/19 21:21	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Calcium</b>	<b>56000</b>	<b>B</b>	61	10	mg/Kg	☼	07/18/19 08:14	07/19/19 21:25	5
<b>Chromium</b>	<b>18</b>		0.61	0.30	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Cobalt</b>	<b>13</b>		0.31	0.080	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Copper</b>	<b>23</b>		0.61	0.17	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Iron</b>	<b>21000</b>		12	6.3	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Lead</b>	<b>12</b>		0.31	0.14	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Magnesium</b>	<b>24000</b>		6.1	3.0	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Manganese</b>	<b>360</b>	<b>B</b>	0.61	0.088	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Nickel</b>	<b>34</b>		0.61	0.18	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Potassium</b>	<b>3700</b>		31	11	mg/Kg	☼	07/18/19 08:14	07/19/19 21:21	1
Selenium	<0.61		0.61	0.36	mg/Kg	☼	07/18/19 08:14	07/22/19 19:37	1
<b>Silver</b>	<b>2.9</b>		0.31	0.079	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Sodium</b>	<b>220</b>		61	9.0	mg/Kg	☼	07/18/19 08:14	07/19/19 21:21	1
<b>Thallium</b>	<b>0.91</b>		0.61	0.30	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Vanadium</b>	<b>22</b>		0.31	0.072	mg/Kg	☼	07/18/19 08:14	07/18/19 15:29	1
<b>Zinc</b>	<b>47</b>		1.2	0.54	mg/Kg	☼	07/18/19 08:14	07/19/19 21:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		07/22/19 08:10	07/23/19 17:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/22/19 08:10	07/23/19 17:12	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B01-3**

**Lab Sample ID: 500-166759-3**

Date Collected: 07/15/19 10:15

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 80.8

**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		07/19/19 14:37	07/22/19 18:43	1
<b>Barium</b>	<b>0.11</b>	<b>J</b>	0.50	0.050	mg/L		07/19/19 14:37	07/22/19 18:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Boron</b>	<b>0.13</b>		0.10	0.050	mg/L		07/19/19 14:37	07/23/19 11:07	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Calcium</b>	<b>19</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Chromium</b>	<b>0.023</b>	<b>J</b>	0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:43	1
Cobalt	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Iron</b>	<b>14</b>		0.40	0.20	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Lead</b>	<b>0.016</b>		0.0075	0.0075	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Manganese</b>	<b>0.14</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Nickel</b>	<b>0.018</b>	<b>J</b>	0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Potassium</b>	<b>9.5</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:43	1
Selenium	<0.050		0.050	0.020	mg/L		07/19/19 14:37	07/22/19 18:43	1
Silver	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:43	1
<b>Zinc</b>	<b>0.059</b>	<b>J B</b>	0.50	0.020	mg/L		07/19/19 14:37	07/22/19 18:43	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		07/19/19 14:37	07/22/19 20:18	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/19/19 14:37	07/22/19 20:18	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		07/22/19 10:40	07/23/19 09:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.024</b>	<b>B</b>	0.020	0.0066	mg/Kg	☼	07/22/19 14:50	07/23/19 10:17	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	07/25/19 14:25	07/25/19 17:21	1
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			07/18/19 14:46	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-1**

**Lab Sample ID: 500-166759-4**

**Date Collected: 07/15/19 10:40**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**Percent Solids: 90.3**

**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	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00066	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
1,1-Dichloroethane	<0.0015		0.0015	0.00053	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
1,1-Dichloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
1,2-Dichloropropane	<0.0015		0.0015	0.00040	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00054	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
2-Butanone (MEK)	<0.0038		0.0038	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
<b>Acetone</b>	<b>0.0088</b>	<b>J</b>	0.015	0.0067	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Bromoform	<0.0015		0.0015	0.00045	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Bromomethane	<0.0038		0.0038	0.0015	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Carbon disulfide	<0.0038		0.0038	0.00080	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Carbon tetrachloride	<0.0015		0.0015	0.00045	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Chlorobenzene	<0.0015		0.0015	0.00057	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Chloroform	<0.0015		0.0015	0.00053	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Chloromethane	<0.0038	*	0.0038	0.0015	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00043	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Dibromochloromethane	<0.0015		0.0015	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Ethylbenzene	<0.0015		0.0015	0.00074	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Styrene	<0.0015		0.0015	0.00046	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Tetrachloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Toluene	<0.0015		0.0015	0.00039	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00068	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00054	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Trichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Vinyl chloride	<0.0015	*	0.0015	0.00068	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1
Xylenes, Total	<0.0031		0.0031	0.00049	mg/Kg	☼	07/16/19 16:00	07/24/19 18:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	07/16/19 16:00	07/24/19 18:58	1
4-Bromofluorobenzene (Surr)	105		75 - 131	07/16/19 16:00	07/24/19 18:58	1
Dibromofluoromethane	106		75 - 126	07/16/19 16:00	07/24/19 18:58	1
Toluene-d8 (Surr)	100		75 - 124	07/16/19 16:00	07/24/19 18:58	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	☼	07/19/19 07:39	07/22/19 19:40	1
1,2-Dichlorobenzene	<0.18		0.18	0.043	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
1,3-Dichlorobenzene	<0.18		0.18	0.041	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
1,4-Dichlorobenzene	<0.18		0.18	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2,2'-oxybis[1-chloropropane]	<0.18		0.18	0.042	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-1**

**Lab Sample ID: 500-166759-4**

Date Collected: 07/15/19 10:40

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 90.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.36		0.36	0.082	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2,4,6-Trichlorophenol	<0.36		0.36	0.12	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2,4-Dichlorophenol	<0.36		0.36	0.086	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2,4-Dimethylphenol	<0.36		0.36	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2,4-Dinitrophenol	<0.73		0.73	0.64	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2,4-Dinitrotoluene	<0.18		0.18	0.057	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2,6-Dinitrotoluene	<0.18		0.18	0.071	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2-Chloronaphthalene	<0.18		0.18	0.040	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2-Chlorophenol	<0.18		0.18	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>2-Methylnaphthalene</b>	<b>0.063</b>	<b>J</b>	0.073	0.0066	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2-Methylphenol	<0.18		0.18	0.058	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2-Nitroaniline	<0.18		0.18	0.049	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
2-Nitrophenol	<0.36		0.36	0.085	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
3 & 4 Methylphenol	<0.18		0.18	0.060	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
3,3'-Dichlorobenzidine	<0.18		0.18	0.051	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
3-Nitroaniline	<0.36		0.36	0.11	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
4,6-Dinitro-2-methylphenol	<0.73		0.73	0.29	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
4-Bromophenyl phenyl ether	<0.18		0.18	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
4-Chloro-3-methylphenol	<0.36		0.36	0.12	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
4-Chloroaniline	<0.73		0.73	0.17	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
4-Chlorophenyl phenyl ether	<0.18		0.18	0.042	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
4-Nitroaniline	<0.36		0.36	0.15	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
4-Nitrophenol	<0.73		0.73	0.34	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Acenaphthene</b>	<b>0.18</b>		0.036	0.0065	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Acenaphthylene</b>	<b>0.073</b>		0.036	0.0048	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Anthracene</b>	<b>0.63</b>		0.036	0.0060	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Benzo[a]anthracene</b>	<b>1.4</b>		0.036	0.0049	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Benzo[a]pyrene</b>	<b>1.1</b>		0.036	0.0070	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Benzo[b]fluoranthene</b>	<b>1.5</b>		0.036	0.0078	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Benzo[g,h,i]perylene</b>	<b>0.32</b>		0.036	0.012	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Benzo[k]fluoranthene</b>	<b>0.55</b>		0.036	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Bis(2-chloroethoxy)methane	<0.18		0.18	0.037	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Bis(2-chloroethyl)ether	<0.18		0.18	0.054	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Bis(2-ethylhexyl) phthalate	<0.18		0.18	0.066	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Butyl benzyl phthalate	<0.18		0.18	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Carbazole</b>	<b>0.19</b>		0.18	0.090	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Chrysene</b>	<b>1.3</b>		0.036	0.0099	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Dibenz(a,h)anthracene</b>	<b>0.11</b>		0.036	0.0070	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Dibenzofuran</b>	<b>0.15</b>	<b>J</b>	0.18	0.042	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Diethyl phthalate	<0.18		0.18	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Dimethyl phthalate	<0.18		0.18	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Di-n-butyl phthalate	<0.18		0.18	0.055	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Di-n-octyl phthalate	<0.18		0.18	0.059	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Fluoranthene</b>	<b>2.4</b>		0.036	0.0067	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Fluorene</b>	<b>0.25</b>		0.036	0.0051	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Hexachlorobenzene	<0.073		0.073	0.0084	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Hexachlorobutadiene	<0.18		0.18	0.057	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Hexachlorocyclopentadiene	<0.73		0.73	0.21	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Hexachloroethane	<0.18		0.18	0.055	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-1**

**Lab Sample ID: 500-166759-4**

Date Collected: 07/15/19 10:40

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 90.3

**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>0.36</b>		0.036	0.0094	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Isophorone	<0.18		0.18	0.041	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Naphthalene</b>	<b>0.068</b>		0.036	0.0056	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Nitrobenzene	<0.036		0.036	0.0090	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
N-Nitrosodi-n-propylamine	<0.073		0.073	0.044	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
N-Nitrosodiphenylamine	<0.18		0.18	0.043	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Pentachlorophenol	<0.73		0.73	0.58	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Phenanthrene</b>	<b>2.0</b>		0.036	0.0050	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
Phenol	<0.18		0.18	0.080	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	1
<b>Pyrene</b>	<b>2.2</b>		0.036	0.0072	mg/Kg	☼	07/19/19 07:39	07/22/19 19:40	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	136		31 - 143				07/19/19 07:39	07/22/19 19:40	1
2-Fluorobiphenyl	85		43 - 145				07/19/19 07:39	07/22/19 19:40	1
2-Fluorophenol	71		31 - 166				07/19/19 07:39	07/22/19 19:40	1
Nitrobenzene-d5	73		37 - 147				07/19/19 07:39	07/22/19 19:40	1
Phenol-d5	68		30 - 153				07/19/19 07:39	07/22/19 19:40	1
Terphenyl-d14	99		42 - 157				07/19/19 07:39	07/22/19 19:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.39</b>	<b>J</b>	1.1	0.21	mg/Kg	☼	07/18/19 08:14	07/19/19 21:29	1
<b>Arsenic</b>	<b>5.1</b>		0.55	0.19	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Barium</b>	<b>36</b>		0.55	0.063	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Beryllium</b>	<b>0.46</b>		0.22	0.051	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Boron</b>	<b>15</b>		2.8	0.26	mg/Kg	☼	07/18/19 08:14	07/19/19 21:29	1
<b>Cadmium</b>	<b>0.22</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Calcium</b>	<b>59000</b>	<b>B</b>	55	9.3	mg/Kg	☼	07/18/19 08:14	07/19/19 21:33	5
<b>Chromium</b>	<b>14</b>		0.55	0.27	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Cobalt</b>	<b>8.8</b>		0.28	0.072	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Copper</b>	<b>21</b>		0.55	0.15	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Iron</b>	<b>14000</b>		11	5.7	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Lead</b>	<b>36</b>		0.28	0.13	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Magnesium</b>	<b>28000</b>		5.5	2.7	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Manganese</b>	<b>250</b>	<b>B</b>	0.55	0.080	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Nickel</b>	<b>22</b>		0.55	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Potassium</b>	<b>2400</b>		28	9.7	mg/Kg	☼	07/18/19 08:14	07/19/19 21:29	1
Selenium	<0.55	<sup>^</sup>	0.55	0.32	mg/Kg	☼	07/18/19 08:14	07/19/19 21:29	1
<b>Silver</b>	<b>2.1</b>		0.28	0.071	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Sodium</b>	<b>700</b>		55	8.1	mg/Kg	☼	07/18/19 08:14	07/19/19 21:29	1
<b>Thallium</b>	<b>0.59</b>		0.55	0.27	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Vanadium</b>	<b>16</b>		0.28	0.065	mg/Kg	☼	07/18/19 08:14	07/18/19 15:41	1
<b>Zinc</b>	<b>48</b>		1.1	0.48	mg/Kg	☼	07/18/19 08:14	07/19/19 21:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		07/22/19 08:10	07/23/19 17:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/22/19 08:10	07/23/19 17:17	1
<b>Manganese</b>	<b>1.8</b>		0.025	0.010	mg/L		07/22/19 08:10	07/23/19 17:17	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-1**

**Lab Sample ID: 500-166759-4**

Date Collected: 07/15/19 10:40

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 90.3

**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		07/19/19 14:37	07/22/19 18:47	1
<b>Barium</b>	<b>0.19</b>	<b>J</b>	0.50	0.050	mg/L		07/19/19 14:37	07/22/19 18:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Boron</b>	<b>0.14</b>		0.10	0.050	mg/L		07/19/19 14:37	07/23/19 11:11	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Calcium</b>	<b>24</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Chromium</b>	<b>0.051</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Cobalt</b>	<b>0.019</b>	<b>J</b>	0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Iron</b>	<b>35</b>		0.40	0.20	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Lead</b>	<b>0.12</b>		0.0075	0.0075	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Manganese</b>	<b>0.28</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Nickel</b>	<b>0.044</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Potassium</b>	<b>17</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:47	1
Selenium	<0.050		0.050	0.020	mg/L		07/19/19 14:37	07/22/19 18:47	1
Silver	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:47	1
<b>Zinc</b>	<b>0.25</b>	<b>J B</b>	0.50	0.020	mg/L		07/19/19 14:37	07/22/19 18:47	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		07/19/19 14:37	07/22/19 20:21	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/19/19 14:37	07/22/19 20:21	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		07/22/19 10:40	07/23/19 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.098</b>	<b>B</b>	0.018	0.0060	mg/Kg	☼	07/22/19 14:50	07/23/19 10:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.45		0.45	0.23	mg/Kg	☼	07/25/19 14:25	07/25/19 17:22	1
<b>pH</b>	<b>8.2</b>		0.2	0.2	SU			07/18/19 14:48	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-2**

**Lab Sample ID: 500-166759-5**

**Date Collected: 07/15/19 10:50**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**Percent Solids: 82.7**

**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	0.00054	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
<b>Acetone</b>	<b>0.016</b>		0.016	0.0070	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Chloromethane	<0.0040 *		0.0040	0.0016	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Vinyl chloride	<0.0016 *		0.0016	0.00071	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	07/16/19 16:00	07/24/19 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 134	07/16/19 16:00	07/24/19 19:23	1
4-Bromofluorobenzene (Surr)	105		75 - 131	07/16/19 16:00	07/24/19 19:23	1
Dibromofluoromethane	107		75 - 126	07/16/19 16:00	07/24/19 19:23	1
Toluene-d8 (Surr)	99		75 - 124	07/16/19 16:00	07/24/19 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	<0.20		0.20	0.043	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-2**

**Lab Sample ID: 500-166759-5**

**Date Collected: 07/15/19 10:50**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**Percent Solids: 82.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>2-Methylnaphthalene</b>	<b>0.026</b>	<b>J</b>	0.080	0.0073	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>Acenaphthene</b>	<b>0.015</b>	<b>J</b>	0.039	0.0071	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>Benzo[g,h,i]perylene</b>	<b>0.016</b>	<b>J</b>	0.039	0.013	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>Chrysene</b>	<b>0.027</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>Fluoranthene</b>	<b>0.0077</b>	<b>J</b>	0.039	0.0073	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>Fluorene</b>	<b>0.0063</b>	<b>J</b>	0.039	0.0056	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-2**

**Lab Sample ID: 500-166759-5**

Date Collected: 07/15/19 10:50

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 82.7

## 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	<0.039		0.039	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>Naphthalene</b>	<b>0.0079</b>	<b>J</b>	0.039	0.0061	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>N-Nitrosodiphenylamine</b>	<b>0.092</b>	<b>J</b>	0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>Phenanthrene</b>	<b>0.10</b>		0.039	0.0055	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
<b>Pyrene</b>	<b>0.020</b>	<b>J</b>	0.039	0.0078	mg/Kg	☼	07/19/19 07:39	07/22/19 13:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	97		31 - 143				07/19/19 07:39	07/22/19 13:11	1
2-Fluorobiphenyl	82		43 - 145				07/19/19 07:39	07/22/19 13:11	1
2-Fluorophenol	73		31 - 166				07/19/19 07:39	07/22/19 13:11	1
Nitrobenzene-d5	73		37 - 147				07/19/19 07:39	07/22/19 13:11	1
Phenol-d5	71		30 - 153				07/19/19 07:39	07/22/19 13:11	1
Terphenyl-d14	94		42 - 157				07/19/19 07:39	07/22/19 13:11	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	07/18/19 08:14	07/19/19 21:37	1
<b>Arsenic</b>	<b>7.6</b>		0.56	0.19	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Barium</b>	<b>32</b>		0.56	0.064	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Beryllium</b>	<b>0.67</b>		0.23	0.053	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Boron</b>	<b>19</b>		2.8	0.26	mg/Kg	☼	07/18/19 08:14	07/19/19 21:37	1
<b>Cadmium</b>	<b>0.16</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Calcium</b>	<b>49000</b>	<b>B</b>	56	9.5	mg/Kg	☼	07/18/19 08:14	07/19/19 21:41	5
<b>Chromium</b>	<b>18</b>		0.56	0.28	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Cobalt</b>	<b>15</b>		0.28	0.074	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Copper</b>	<b>29</b>		0.56	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Iron</b>	<b>21000</b>		11	5.9	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Lead</b>	<b>15</b>		0.28	0.13	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Magnesium</b>	<b>22000</b>		5.6	2.8	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Manganese</b>	<b>370</b>	<b>B</b>	0.56	0.082	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Nickel</b>	<b>39</b>		0.56	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Potassium</b>	<b>3500</b>		28	10	mg/Kg	☼	07/18/19 08:14	07/19/19 21:37	1
<b>Selenium</b>	<b>0.51</b>	<b>J ^</b>	0.56	0.33	mg/Kg	☼	07/18/19 08:14	07/19/19 21:37	1
<b>Silver</b>	<b>2.8</b>		0.28	0.073	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Sodium</b>	<b>260</b>		56	8.3	mg/Kg	☼	07/18/19 08:14	07/19/19 21:37	1
<b>Thallium</b>	<b>1.1</b>		0.56	0.28	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Vanadium</b>	<b>20</b>		0.28	0.066	mg/Kg	☼	07/18/19 08:14	07/18/19 15:45	1
<b>Zinc</b>	<b>47</b>		1.1	0.49	mg/Kg	☼	07/18/19 08:14	07/19/19 21:37	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		07/19/19 14:37	07/22/19 18:51	1
Barium	<0.50		0.50	0.050	mg/L		07/19/19 14:37	07/22/19 18:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/19/19 14:37	07/22/19 18:51	1
Boron	<0.10		0.10	0.050	mg/L		07/19/19 14:37	07/23/19 11:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-2**

**Lab Sample ID: 500-166759-5**

Date Collected: 07/15/19 10:50

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 82.7

**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		07/19/19 14:37	07/22/19 18:51	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:51	1
Chromium	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:51	1
Cobalt	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:51	1
<b>Iron</b>	<b>0.29</b>	<b>J</b>	0.40	0.20	mg/L		07/19/19 14:37	07/22/19 18:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/19/19 14:37	07/22/19 18:51	1
<b>Manganese</b>	<b>0.026</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:51	1
Nickel	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:51	1
<b>Potassium</b>	<b>3.0</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:51	1
Selenium	<0.050		0.050	0.020	mg/L		07/19/19 14:37	07/22/19 18:51	1
Silver	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:51	1
<b>Zinc</b>	<b>0.039</b>	<b>J B</b>	0.50	0.020	mg/L		07/19/19 14:37	07/22/19 18:51	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		07/19/19 14:37	07/22/19 20:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/19/19 14:37	07/22/19 20:24	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		07/22/19 10:40	07/23/19 09:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.030</b>	<b>B</b>	0.019	0.0062	mg/Kg	☼	07/22/19 14:50	07/23/19 10:21	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.43		0.43	0.22	mg/Kg	☼	07/25/19 14:25	07/25/19 17:22	1
<b>pH</b>	<b>8.1</b>		0.2	0.2	SU			07/18/19 14:50	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-3**

**Lab Sample ID: 500-166759-6**

**Date Collected: 07/15/19 11:05**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**Percent Solids: 81.9**

**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	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00071	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
1,1-Dichloroethene	<0.0016		0.0016	0.00057	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
1,2-Dichloropropane	<0.0016		0.0016	0.00043	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Acetone	<0.016		0.016	0.0072	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Bromodichloromethane	<0.0016		0.0016	0.00034	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Carbon disulfide	<0.0041		0.0041	0.00086	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Chlorobenzene	<0.0016		0.0016	0.00061	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Chloromethane	<0.0041 *		0.0041	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Ethylbenzene	<0.0016		0.0016	0.00079	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Toluene	<0.0016		0.0016	0.00042	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Trichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Vinyl chloride	<0.0016 *		0.0016	0.00073	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	07/16/19 16:00	07/24/19 19:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	07/16/19 16:00	07/24/19 19:49	1
4-Bromofluorobenzene (Surr)	105		75 - 131	07/16/19 16:00	07/24/19 19:49	1
Dibromofluoromethane	108		75 - 126	07/16/19 16:00	07/24/19 19:49	1
Toluene-d8 (Surr)	99		75 - 124	07/16/19 16:00	07/24/19 19:49	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	☼	07/19/19 07:39	07/22/19 13:35	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-3**

**Lab Sample ID: 500-166759-6**

Date Collected: 07/15/19 11:05

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 81.9

**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	☼	07/19/19 07:39	07/22/19 13:35	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
<b>2-Methylnaphthalene</b>	<b>0.035</b>	<b>J</b>	0.081	0.0074	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
<b>Chrysene</b>	<b>0.021</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-3**

**Lab Sample ID: 500-166759-6**

Date Collected: 07/15/19 11:05

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 81.9

**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	☼	07/19/19 07:39	07/22/19 13:35	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
<b>Naphthalene</b>	<b>0.011</b>	<b>J</b>	0.040	0.0062	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
<b>Phenanthrene</b>	<b>0.085</b>		0.040	0.0056	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	1
<b>Pyrene</b>	<b>0.016</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	07/19/19 07:39	07/22/19 13:35	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	95		31 - 143				07/19/19 07:39	07/22/19 13:35	1
2-Fluorobiphenyl	83		43 - 145				07/19/19 07:39	07/22/19 13:35	1
2-Fluorophenol	71		31 - 166				07/19/19 07:39	07/22/19 13:35	1
Nitrobenzene-d5	74		37 - 147				07/19/19 07:39	07/22/19 13:35	1
Phenol-d5	69		30 - 153				07/19/19 07:39	07/22/19 13:35	1
Terphenyl-d14	90		42 - 157				07/19/19 07:39	07/22/19 13:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	07/18/19 08:14	07/19/19 21:53	1
<b>Arsenic</b>	<b>7.6</b>		0.56	0.19	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Barium</b>	<b>38</b>		0.56	0.064	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Beryllium</b>	<b>0.64</b>		0.23	0.053	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Boron</b>	<b>19</b>		2.8	0.26	mg/Kg	☼	07/18/19 08:14	07/19/19 21:53	1
<b>Cadmium</b>	<b>0.18</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Calcium</b>	<b>50000</b>	<b>B</b>	56	9.6	mg/Kg	☼	07/18/19 08:14	07/19/19 21:57	5
<b>Chromium</b>	<b>17</b>		0.56	0.28	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Cobalt</b>	<b>14</b>		0.28	0.074	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Copper</b>	<b>28</b>		0.56	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Iron</b>	<b>23000</b>		11	5.9	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Lead</b>	<b>17</b>		0.28	0.13	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Magnesium</b>	<b>23000</b>		5.6	2.8	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Manganese</b>	<b>340</b>	<b>B</b>	0.56	0.082	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Nickel</b>	<b>36</b>		0.56	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Potassium</b>	<b>3400</b>		28	10	mg/Kg	☼	07/18/19 08:14	07/19/19 21:53	1
<b>Selenium</b>	<b>0.35</b>	<b>J ^</b>	0.56	0.33	mg/Kg	☼	07/18/19 08:14	07/19/19 21:53	1
<b>Silver</b>	<b>2.6</b>		0.28	0.073	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Sodium</b>	<b>200</b>		56	8.4	mg/Kg	☼	07/18/19 08:14	07/19/19 21:53	1
<b>Thallium</b>	<b>0.93</b>		0.56	0.28	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Vanadium</b>	<b>21</b>		0.28	0.067	mg/Kg	☼	07/18/19 08:14	07/18/19 15:49	1
<b>Zinc</b>	<b>47</b>		1.1	0.50	mg/Kg	☼	07/18/19 08:14	07/19/19 21:53	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		07/19/19 14:37	07/22/19 18:55	1
Barium	<0.50		0.50	0.050	mg/L		07/19/19 14:37	07/22/19 18:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/19/19 14:37	07/22/19 18:55	1
<b>Boron</b>	<b>0.069</b>	<b>J</b>	0.10	0.050	mg/L		07/19/19 14:37	07/23/19 11:19	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-3**

**Lab Sample ID: 500-166759-6**

Date Collected: 07/15/19 11:05

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 81.9

**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		07/19/19 14:37	07/22/19 18:55	1
<b>Calcium</b>	<b>21</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:55	1
Chromium	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:55	1
Cobalt	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:55	1
Iron	<0.40		0.40	0.20	mg/L		07/19/19 14:37	07/22/19 18:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/19/19 14:37	07/22/19 18:55	1
<b>Manganese</b>	<b>0.021</b>	<b>J</b>	0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:55	1
Nickel	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:55	1
<b>Potassium</b>	<b>1.5</b>	<b>J</b>	2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:55	1
Selenium	<0.050		0.050	0.020	mg/L		07/19/19 14:37	07/22/19 18:55	1
Silver	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:55	1
<b>Zinc</b>	<b>0.031</b>	<b>J B</b>	0.50	0.020	mg/L		07/19/19 14:37	07/22/19 18:55	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		07/19/19 14:37	07/22/19 20:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/19/19 14:37	07/22/19 20:27	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		07/22/19 10:40	07/23/19 09:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.028</b>	<b>B</b>	0.019	0.0063	mg/Kg	☼	07/22/19 14:50	07/23/19 10:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.59		0.59	0.30	mg/Kg	☼	07/25/19 14:25	07/25/19 17:24	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			07/18/19 14:51	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-4**

**Lab Sample ID: 500-166759-7**

**Date Collected: 07/15/19 11:35**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**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	<0.0017		0.0017	0.00058	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
<b>Acetone</b>	<b>0.018</b>		0.017	0.0075	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Chloromethane	<0.0043 *		0.0043	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Vinyl chloride	<0.0017 *		0.0017	0.00077	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	07/16/19 16:00	07/24/19 20:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	07/16/19 16:00	07/24/19 20:15	1
4-Bromofluorobenzene (Surr)	102		75 - 131	07/16/19 16:00	07/24/19 20:15	1
Dibromofluoromethane	106		75 - 126	07/16/19 16:00	07/24/19 20:15	1
Toluene-d8 (Surr)	97		75 - 124	07/16/19 16:00	07/24/19 20:15	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	☼	07/19/19 07:39	07/22/19 14:00	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-4**

**Lab Sample ID: 500-166759-7**

Date Collected: 07/15/19 11:35

Matrix: Solid

Date Received: 07/16/19 11:15

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	<0.40		0.40	0.092	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
<b>2-Methylnaphthalene</b>	<b>0.039</b>	<b>J</b>	0.082	0.0074	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
<b>Benzo[g,h,i]perylene</b>	<b>0.020</b>	<b>J</b>	0.040	0.013	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-4**

**Lab Sample ID: 500-166759-7**

Date Collected: 07/15/19 11:35

Matrix: Solid

Date Received: 07/16/19 11:15

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	<0.040		0.040	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
<b>Phenanthrene</b>	<b>0.093</b>		0.040	0.0056	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	07/19/19 07:39	07/22/19 14:00	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	85		31 - 143				07/19/19 07:39	07/22/19 14:00	1
2-Fluorobiphenyl	69		43 - 145				07/19/19 07:39	07/22/19 14:00	1
2-Fluorophenol	62		31 - 166				07/19/19 07:39	07/22/19 14:00	1
Nitrobenzene-d5	57		37 - 147				07/19/19 07:39	07/22/19 14:00	1
Phenol-d5	61		30 - 153				07/19/19 07:39	07/22/19 14:00	1
Terphenyl-d14	88		42 - 157				07/19/19 07:39	07/22/19 14:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	07/18/19 08:14	07/19/19 22:01	1
<b>Arsenic</b>	<b>6.4</b>		0.60	0.21	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Barium</b>	<b>43</b>		0.60	0.069	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Beryllium</b>	<b>0.72</b>		0.24	0.056	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Boron</b>	<b>22</b>		3.0	0.28	mg/Kg	☼	07/18/19 08:14	07/19/19 22:01	1
<b>Cadmium</b>	<b>0.17</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Calcium</b>	<b>61000</b>	<b>B</b>	60	10	mg/Kg	☼	07/18/19 08:14	07/19/19 22:06	5
<b>Chromium</b>	<b>19</b>		0.60	0.30	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Cobalt</b>	<b>14</b>		0.30	0.079	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Copper</b>	<b>24</b>		0.60	0.17	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Iron</b>	<b>21000</b>		12	6.3	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Magnesium</b>	<b>25000</b>		6.0	3.0	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Manganese</b>	<b>390</b>	<b>B</b>	0.60	0.087	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Nickel</b>	<b>35</b>		0.60	0.18	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Potassium</b>	<b>3800</b>		30	11	mg/Kg	☼	07/18/19 08:14	07/19/19 22:01	1
Selenium	<0.60	<sup>^</sup>	0.60	0.35	mg/Kg	☼	07/18/19 08:14	07/19/19 22:01	1
<b>Silver</b>	<b>3.0</b>		0.30	0.078	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Sodium</b>	<b>200</b>		60	8.9	mg/Kg	☼	07/18/19 08:14	07/19/19 22:01	1
<b>Thallium</b>	<b>0.95</b>		0.60	0.30	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Vanadium</b>	<b>23</b>		0.30	0.071	mg/Kg	☼	07/18/19 08:14	07/18/19 15:53	1
<b>Zinc</b>	<b>53</b>		1.2	0.53	mg/Kg	☼	07/18/19 08:14	07/19/19 22:01	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		07/19/19 14:37	07/22/19 18:59	1
Barium	<0.50		0.50	0.050	mg/L		07/19/19 14:37	07/22/19 18:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/19/19 14:37	07/22/19 18:59	1
<b>Boron</b>	<b>0.089</b>	<b>J</b>	0.10	0.050	mg/L		07/19/19 14:37	07/23/19 11:31	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-4**

**Lab Sample ID: 500-166759-7**

Date Collected: 07/15/19 11:35

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 80.2

**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		07/19/19 14:37	07/22/19 18:59	1
<b>Calcium</b>	<b>14</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:59	1
Chromium	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:59	1
Cobalt	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:59	1
<b>Iron</b>	<b>2.3</b>		0.40	0.20	mg/L		07/19/19 14:37	07/22/19 18:59	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/19/19 14:37	07/22/19 18:59	1
<b>Manganese</b>	<b>0.030</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:59	1
Nickel	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:59	1
<b>Potassium</b>	<b>3.2</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 18:59	1
Selenium	<0.050		0.050	0.020	mg/L		07/19/19 14:37	07/22/19 18:59	1
Silver	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 18:59	1
<b>Zinc</b>	<b>0.035</b>	<b>J B</b>	0.50	0.020	mg/L		07/19/19 14:37	07/22/19 18:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		07/19/19 14:37	07/22/19 20:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/19/19 14:37	07/22/19 20:29	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		07/22/19 10:40	07/23/19 09:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.026</b>	<b>B</b>	0.019	0.0062	mg/Kg	☼	07/22/19 14:50	07/23/19 10:26	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.44		0.44	0.22	mg/Kg	☼	07/25/19 14:25	07/25/19 17:25	1
<b>pH</b>	<b>8.5</b>		0.2	0.2	SU			07/18/19 14:53	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-5**

**Lab Sample ID: 500-166759-8**

**Date Collected: 07/15/19 11:40**

**Matrix: Solid**

**Date Received: 07/16/19 11:15**

**Percent Solids: 79.2**

**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	0.00060	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
<b>Acetone</b>	<b>0.10</b>		0.018	0.0078	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	07/16/19 16:00	07/25/19 16:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	07/16/19 16:00	07/25/19 16:36	1
4-Bromofluorobenzene (Surr)	101		75 - 131	07/16/19 16:00	07/25/19 16:36	1
Dibromofluoromethane	108		75 - 126	07/16/19 16:00	07/25/19 16:36	1
Toluene-d8 (Surr)	99		75 - 124	07/16/19 16:00	07/25/19 16:36	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	☼	07/19/19 07:39	07/22/19 14:24	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-5**

**Lab Sample ID: 500-166759-8**

Date Collected: 07/15/19 11:40

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 79.2

**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	0.092	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
<b>2-Methylnaphthalene</b>	<b>0.035</b>	<b>J</b>	0.081	0.0074	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
<b>Acenaphthene</b>	<b>0.015</b>	<b>J</b>	0.040	0.0072	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
<b>Benzo[g,h,i]perylene</b>	<b>0.022</b>	<b>J</b>	0.040	0.013	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
<b>Chrysene</b>	<b>0.030</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
<b>Fluorene</b>	<b>0.0091</b>	<b>J</b>	0.040	0.0057	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-5**

**Lab Sample ID: 500-166759-8**

Date Collected: 07/15/19 11:40

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 79.2

**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	<0.040		0.040	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
<b>Phenanthrene</b>	<b>0.11</b>		0.040	0.0056	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	07/19/19 07:39	07/22/19 14:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		31 - 143				07/19/19 07:39	07/22/19 14:24	1
2-Fluorobiphenyl	69		43 - 145				07/19/19 07:39	07/22/19 14:24	1
2-Fluorophenol	70		31 - 166				07/19/19 07:39	07/22/19 14:24	1
Nitrobenzene-d5	57		37 - 147				07/19/19 07:39	07/22/19 14:24	1
Phenol-d5	71		30 - 153				07/19/19 07:39	07/22/19 14:24	1
Terphenyl-d14	95		42 - 157				07/19/19 07:39	07/22/19 14:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	07/18/19 08:14	07/19/19 22:10	1
<b>Arsenic</b>	<b>7.5</b>		0.59	0.20	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Barium</b>	<b>44</b>		0.59	0.067	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Beryllium</b>	<b>0.73</b>		0.23	0.055	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Boron</b>	<b>21</b>		2.9	0.27	mg/Kg	☼	07/18/19 08:14	07/19/19 22:10	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Calcium</b>	<b>53000</b>	<b>B</b>	59	10	mg/Kg	☼	07/18/19 08:14	07/19/19 22:14	5
<b>Chromium</b>	<b>19</b>		0.59	0.29	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Cobalt</b>	<b>15</b>		0.29	0.077	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Copper</b>	<b>26</b>		0.59	0.16	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Iron</b>	<b>22000</b>		12	6.1	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Lead</b>	<b>14</b>		0.29	0.14	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Magnesium</b>	<b>22000</b>		5.9	2.9	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Manganese</b>	<b>350</b>	<b>B</b>	0.59	0.085	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Nickel</b>	<b>38</b>		0.59	0.17	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Potassium</b>	<b>3800</b>		29	10	mg/Kg	☼	07/18/19 08:14	07/19/19 22:10	1
Selenium	<0.59	<sup>^</sup>	0.59	0.35	mg/Kg	☼	07/18/19 08:14	07/19/19 22:10	1
<b>Silver</b>	<b>2.9</b>		0.29	0.076	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Sodium</b>	<b>210</b>		59	8.7	mg/Kg	☼	07/18/19 08:14	07/19/19 22:10	1
<b>Thallium</b>	<b>1.2</b>		0.59	0.29	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Vanadium</b>	<b>23</b>		0.29	0.069	mg/Kg	☼	07/18/19 08:14	07/18/19 15:57	1
<b>Zinc</b>	<b>51</b>		1.2	0.52	mg/Kg	☼	07/18/19 08:14	07/19/19 22:10	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		07/19/19 14:37	07/22/19 19:03	1
<b>Barium</b>	<b>0.052</b>	<b>J</b>	0.50	0.050	mg/L		07/19/19 14:37	07/22/19 19:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/19/19 14:37	07/22/19 19:03	1
<b>Boron</b>	<b>0.11</b>		0.10	0.050	mg/L		07/19/19 14:37	07/23/19 11:35	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

**Client Sample ID: 2615V2-1-B08-5**

**Lab Sample ID: 500-166759-8**

Date Collected: 07/15/19 11:40

Matrix: Solid

Date Received: 07/16/19 11:15

Percent Solids: 79.2

## 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		07/19/19 14:37	07/22/19 19:03	1
<b>Calcium</b>	<b>14</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 19:03	1
Chromium	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 19:03	1
Cobalt	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 19:03	1
<b>Iron</b>	<b>3.9</b>		0.40	0.20	mg/L		07/19/19 14:37	07/22/19 19:03	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/19/19 14:37	07/22/19 19:03	1
<b>Manganese</b>	<b>0.046</b>		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 19:03	1
Nickel	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 19:03	1
<b>Potassium</b>	<b>4.1</b>		2.5	0.50	mg/L		07/19/19 14:37	07/22/19 19:03	1
Selenium	<0.050		0.050	0.020	mg/L		07/19/19 14:37	07/22/19 19:03	1
Silver	<0.025		0.025	0.010	mg/L		07/19/19 14:37	07/22/19 19:03	1
<b>Zinc</b>	<b>0.069</b>	<b>J B</b>	0.50	0.020	mg/L		07/19/19 14:37	07/22/19 19:03	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		07/19/19 14:37	07/22/19 20:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/19/19 14:37	07/22/19 20:32	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		07/22/19 10:40	07/23/19 09:50	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.024</b>	<b>B</b>	0.020	0.0065	mg/Kg	☼	07/22/19 14:50	07/23/19 10:28	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.42		0.42	0.21	mg/Kg	☼	07/25/19 14:25	07/25/19 17:25	1
<b>pH</b>	<b>8.5</b>		0.2	0.2	SU			07/18/19 14:55	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166759-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
E	Result exceeded calibration range.
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
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.

### 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
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
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 - AE7-20

Job ID: 500-166759-1

## 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

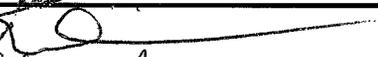
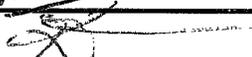
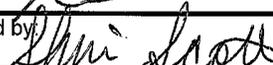
<b>Client Contact</b>  Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com	 500-166759 COC	<b>Laboratory</b>  Lab: <b>Test America - Chicago</b> Address: <b>2417 Bond Street</b> <b>University Park, IL 60484</b> Phone: <b>708-534-5200</b> Contact: <b>Dick Wright</b> email: richard.wright@testamericainc.com	Project Name: <u>AE 7-80A</u>  Project No.: <u>PTB/WO:184-006/80A</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>500-166759</u>  Sample Temp: <u>5.1, 4.9, 1.8</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																		
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	2615V2-1-B01-1	7-15-19	0957	S	X	X					X	X	X	X	X								
2	2615V2-1-B01-2	7-15-19	1005																				
3	2615V2-1-B01-3	7-15-19	1015																				
4	2615V2-1-B08-1	7-15-19	1040																				
5	2615V2-1-B08-2	7-15-19	1050																				
6	2615V2-1-B08-3	7-15-19	1105																				
7	2615V2-1-B08-4	7-15-19	1135																				
8	2615V2-1-B08-5	7-15-19	1140																				
9	2615V2-1-B09-1	7-15-19	1235																				
10	2615V2-1-B09-2	7-15-19	1240																				
11	2615V2-1-B09-3	7-15-19	1250																				
12	TRIP BLANK #1																						

**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	Comments
1	2615V2-1-B01-1	7-15-19	0957	S	
2	2615V2-1-B01-2	7-15-19	1005		
3	2615V2-1-B01-3	7-15-19	1015		
4	2615V2-1-B08-1	7-15-19	1040		
5	2615V2-1-B08-2	7-15-19	1050		
6	2615V2-1-B08-3	7-15-19	1105		
7	2615V2-1-B08-4	7-15-19	1135		
8	2615V2-1-B08-5	7-15-19	1140		
9	2615V2-1-B09-1	7-15-19	1235		
10	2615V2-1-B09-2	7-15-19	1240		
11	2615V2-1-B09-3	7-15-19	1250		
12	TRIP BLANK #1				

Relinquished by: 	Date/Time: <u>7/15/19 5:00pm</u>	Received by: 	Date/Time: <u>7/15/19 5:00pm</u>
Relinquished by: 	Date/Time: <u>7/16/19 9:13am</u>	Received by: 	Date/Time: <u>7/16/19 9:13am</u>
Relinquished by: 	Date/Time: <u>7/16/19 1115</u>	Received by: 	Date/Time: <u>7/16/19 1115</u>

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-166838-1  
Client Project/Site: IDOT - AE7-20

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
7/31/2019 1:36:28 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 - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-1**

**Lab Sample ID: 500-166838-5**

**Date Collected: 07/16/19 11:25**

**Matrix: Solid**

**Date Received: 07/17/19 12:30**

**Percent Solids: 85.3**

**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	☼	07/17/19 17:00	07/26/19 02:32	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
<b>Acetone</b>	<b>0.0087</b>	<b>J</b>	0.018	0.0077	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	07/17/19 17:00	07/26/19 02:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	07/17/19 17:00	07/26/19 02:32	1
4-Bromofluorobenzene (Surr)	94		75 - 131	07/17/19 17:00	07/26/19 02:32	1
Dibromofluoromethane	103		75 - 126	07/17/19 17:00	07/26/19 02:32	1
Toluene-d8 (Surr)	96		75 - 124	07/17/19 17:00	07/26/19 02:32	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	☼	07/24/19 07:54	07/25/19 20:59	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-1**

**Lab Sample ID: 500-166838-5**

Date Collected: 07/16/19 11:25

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 85.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>2-Methylnaphthalene</b>	<b>0.13</b>		0.077	0.0071	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Acenaphthene</b>	<b>0.11</b>		0.038	0.0069	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Anthracene</b>	<b>0.22</b>		0.038	0.0064	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Benzo[a]anthracene</b>	<b>0.32</b>		0.038	0.0052	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Benzo[a]pyrene</b>	<b>0.25</b>		0.038	0.0074	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Benzo[b]fluoranthene</b>	<b>0.32</b>		0.038	0.0083	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Benzo[g,h,i]perylene</b>	<b>0.10</b>		0.038	0.012	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Benzo[k]fluoranthene</b>	<b>0.12</b>		0.038	0.011	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Carbazole</b>	<b>0.29</b>		0.19	0.096	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Chrysene</b>	<b>0.35</b>		0.038	0.010	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Dibenz(a,h)anthracene</b>	<b>0.030</b>	J	0.038	0.0074	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Dibenzofuran</b>	<b>0.14</b>	J	0.19	0.045	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Fluoranthene</b>	<b>0.85</b>		0.038	0.0071	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Fluorene</b>	<b>0.24</b>		0.038	0.0054	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-1**

**Lab Sample ID: 500-166838-5**

Date Collected: 07/16/19 11:25

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 85.3

## 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>0.087</b>		0.038	0.0099	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Naphthalene</b>	<b>0.091</b>		0.038	0.0059	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Phenanthrene</b>	<b>1.1</b>		0.038	0.0054	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	1
<b>Pyrene</b>	<b>0.69</b>		0.038	0.0076	mg/Kg	☼	07/24/19 07:54	07/25/19 20:59	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				07/24/19 07:54	07/25/19 20:59	1
2-Fluorobiphenyl	97		43 - 145				07/24/19 07:54	07/25/19 20:59	1
2-Fluorophenol	92		31 - 166				07/24/19 07:54	07/25/19 20:59	1
Nitrobenzene-d5	87		37 - 147				07/24/19 07:54	07/25/19 20:59	1
Phenol-d5	79		30 - 153				07/24/19 07:54	07/25/19 20:59	1
Terphenyl-d14	122		42 - 157				07/24/19 07:54	07/25/19 20:59	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.21	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Arsenic</b>	<b>8.5</b>		0.54	0.19	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Barium</b>	<b>32</b>		0.54	0.062	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Beryllium</b>	<b>0.68</b>		0.22	0.051	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Boron</b>	<b>19</b>		2.7	0.25	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Cadmium</b>	<b>0.32</b>	<b>B</b>	0.11	0.019	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Calcium</b>	<b>50000</b>	<b>B</b>	54	9.2	mg/Kg	☼	07/19/19 08:35	07/23/19 02:34	5
<b>Chromium</b>	<b>15</b>		0.54	0.27	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Cobalt</b>	<b>13</b>		0.27	0.071	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Copper</b>	<b>32</b>		0.54	0.15	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	11	5.6	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Lead</b>	<b>16</b>		0.27	0.13	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Magnesium</b>	<b>25000</b>	<b>B</b>	5.4	2.7	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Manganese</b>	<b>340</b>		0.54	0.078	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Nickel</b>	<b>34</b>		0.54	0.16	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Potassium</b>	<b>3500</b>		27	9.6	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
Selenium	<0.54		0.54	0.32	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Silver</b>	<b>2.1</b>		0.27	0.070	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Sodium</b>	<b>850</b>		54	8.0	mg/Kg	☼	07/19/19 08:35	07/23/19 02:30	1
<b>Thallium</b>	<b>1.1</b>		0.54	0.27	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Vanadium</b>	<b>19</b>		0.27	0.064	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1
<b>Zinc</b>	<b>74</b>		1.1	0.48	mg/Kg	☼	07/19/19 08:35	07/20/19 00:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.0075		0.0075	0.0075	mg/L		07/22/19 08:12	07/23/19 19:35	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-1**

**Lab Sample ID: 500-166838-5**

Date Collected: 07/16/19 11:25

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 85.3

**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		07/22/19 08:07	07/24/19 19:30	1
Barium	<0.50		0.50	0.050	mg/L		07/22/19 08:07	07/24/19 19:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/22/19 08:07	07/24/19 19:30	1
<b>Boron</b>	<b>0.16</b>		0.10	0.050	mg/L		07/26/19 14:43	07/29/19 09:37	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		07/22/19 08:07	07/24/19 19:30	1
<b>Calcium</b>	<b>12</b>		2.5	0.50	mg/L		07/22/19 08:07	07/24/19 19:30	1
<b>Chromium</b>	<b>0.011</b>	<b>J</b>	0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:30	1
Cobalt	<0.025		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:30	1
<b>Iron</b>	<b>4.6</b>		0.40	0.20	mg/L		07/22/19 08:07	07/24/19 19:30	1
<b>Lead</b>	<b>0.0077</b>		0.0075	0.0075	mg/L		07/22/19 08:07	07/24/19 19:30	1
<b>Manganese</b>	<b>0.034</b>		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:30	1
Nickel	<0.025		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:30	1
<b>Potassium</b>	<b>8.3</b>		2.5	0.50	mg/L		07/22/19 08:07	07/24/19 19:30	1
Selenium	<0.050		0.050	0.020	mg/L		07/22/19 08:07	07/24/19 19:30	1
Silver	<0.025		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:30	1
<b>Zinc</b>	<b>0.055</b>	<b>J</b>	0.50	0.020	mg/L		07/22/19 08:07	07/24/19 19:30	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		07/22/19 08:07	07/22/19 22:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/22/19 08:07	07/22/19 22:20	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		07/25/19 10:10	07/26/19 09:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.032</b>		0.018	0.0058	mg/Kg	☼	07/25/19 14:10	07/26/19 08:53	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.46		0.46	0.23	mg/Kg	☼	07/26/19 13:30	07/26/19 16:41	1
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			07/19/19 12:59	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-2**

**Lab Sample ID: 500-166838-6**

Date Collected: 07/16/19 11:30

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 81.9

**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	0.00058	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
<b>Acetone</b>	<b>0.022</b>		0.017	0.0075	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1
Xylenes, Total	<0.0035		0.0035	0.00055	mg/Kg	☼	07/17/19 17:00	07/26/19 02:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		70 - 134	07/17/19 17:00	07/26/19 02:57	1
4-Bromofluorobenzene (Surr)	88		75 - 131	07/17/19 17:00	07/26/19 02:57	1
Dibromofluoromethane	102		75 - 126	07/17/19 17:00	07/26/19 02:57	1
Toluene-d8 (Surr)	96		75 - 124	07/17/19 17:00	07/26/19 02:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-2**

**Lab Sample ID: 500-166838-6**

Date Collected: 07/16/19 11:30

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 81.9

**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	0.092	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
<b>2-Methylnaphthalene</b>	<b>0.026</b>	<b>J</b>	0.082	0.0074	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-2**

**Lab Sample ID: 500-166838-6**

Date Collected: 07/16/19 11:30

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 81.9

**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	☼	07/24/19 07:54	07/27/19 13:04	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
<b>Phenanthrene</b>	<b>0.094</b>		0.040	0.0056	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	07/24/19 07:54	07/27/19 13:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	50		31 - 143				07/24/19 07:54	07/27/19 13:04	1
2-Fluorobiphenyl	70		43 - 145				07/24/19 07:54	07/27/19 13:04	1
2-Fluorophenol	96		31 - 166				07/24/19 07:54	07/27/19 13:04	1
Nitrobenzene-d5	67		37 - 147				07/24/19 07:54	07/27/19 13:04	1
Phenol-d5	81		30 - 153				07/24/19 07:54	07/27/19 13:04	1
Terphenyl-d14	96		42 - 157				07/24/19 07:54	07/27/19 13:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.1		1.1	0.22	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Arsenic</b>	<b>8.2</b>		0.57	0.20	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Barium</b>	<b>44</b>		0.57	0.065	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Beryllium</b>	<b>0.77</b>		0.23	0.053	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Boron</b>	<b>23</b>		2.9	0.27	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Calcium</b>	<b>50000</b>	<b>B</b>	57	9.7	mg/Kg	☼	07/19/19 08:35	07/23/19 02:42	5
<b>Chromium</b>	<b>18</b>		0.57	0.28	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Cobalt</b>	<b>13</b>		0.29	0.075	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Copper</b>	<b>27</b>		0.57	0.16	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	11	6.0	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Lead</b>	<b>13</b>		0.29	0.13	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Magnesium</b>	<b>24000</b>	<b>B</b>	5.7	2.8	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Manganese</b>	<b>340</b>		0.57	0.083	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Nickel</b>	<b>34</b>		0.57	0.17	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Potassium</b>	<b>4200</b>		29	10	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Silver</b>	<b>2.5</b>		0.29	0.074	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Sodium</b>	<b>260</b>		57	8.5	mg/Kg	☼	07/19/19 08:35	07/23/19 02:38	1
<b>Thallium</b>	<b>1.1</b>		0.57	0.29	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Vanadium</b>	<b>22</b>		0.29	0.068	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	1
<b>Zinc</b>	<b>50</b>		1.1	0.50	mg/Kg	☼	07/19/19 08:35	07/20/19 01:02	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		07/22/19 08:07	07/24/19 19:34	1
<b>Barium</b>	<b>0.056</b>	<b>J</b>	0.50	0.050	mg/L		07/22/19 08:07	07/24/19 19:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/22/19 08:07	07/24/19 19:34	1
<b>Boron</b>	<b>0.12</b>		0.10	0.050	mg/L		07/26/19 14:43	07/29/19 09:41	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-2**

**Lab Sample ID: 500-166838-6**

Date Collected: 07/16/19 11:30

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 81.9

**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		07/22/19 08:07	07/24/19 19:34	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		07/22/19 08:07	07/24/19 19:34	1
Chromium	<0.025		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:34	1
Cobalt	<0.025		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:34	1
<b>Iron</b>	<b>2.7</b>		0.40	0.20	mg/L		07/22/19 08:07	07/24/19 19:34	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/22/19 08:07	07/24/19 19:34	1
<b>Manganese</b>	<b>0.035</b>		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:34	1
Nickel	<0.025		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:34	1
<b>Potassium</b>	<b>4.5</b>		2.5	0.50	mg/L		07/22/19 08:07	07/24/19 19:34	1
Selenium	<0.050		0.050	0.020	mg/L		07/22/19 08:07	07/24/19 19:34	1
Silver	<0.025		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:34	1
<b>Zinc</b>	<b>0.12</b>	<b>J</b>	0.50	0.020	mg/L		07/22/19 08:07	07/24/19 19:34	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		07/22/19 08:07	07/22/19 22:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/22/19 08:07	07/22/19 22:23	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		07/25/19 10:10	07/26/19 09:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.026</b>		0.019	0.0064	mg/Kg	☼	07/25/19 14:10	07/26/19 08:55	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.44		0.44	0.22	mg/Kg	☼	07/26/19 13:30	07/26/19 16:41	1
<b>pH</b>	<b>8.6</b>		0.2	0.2	SU			07/19/19 13:03	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-3**

**Lab Sample ID: 500-166838-7**

**Date Collected: 07/16/19 11:35**

**Matrix: Solid**

**Date Received: 07/17/19 12:30**

**Percent Solids: 80.8**

**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	0.00058	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
<b>Acetone</b>	<b>0.040</b>		0.017	0.0075	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	07/17/19 17:00	07/26/19 03:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	07/17/19 17:00	07/26/19 03:22	1
4-Bromofluorobenzene (Surr)	88		75 - 131	07/17/19 17:00	07/26/19 03:22	1
Dibromofluoromethane	104		75 - 126	07/17/19 17:00	07/26/19 03:22	1
Toluene-d8 (Surr)	93		75 - 124	07/17/19 17:00	07/26/19 03:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-3**

**Lab Sample ID: 500-166838-7**

Date Collected: 07/16/19 11:35

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
<b>2-Methylnaphthalene</b>	<b>0.036</b>	<b>J</b>	0.082	0.0075	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.048	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
<b>Benzo[g,h,i]perylene</b>	<b>0.018</b>	<b>J</b>	0.040	0.013	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.042	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Fluoranthene	<0.040		0.040	0.0076	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-3**

**Lab Sample ID: 500-166838-7**

Date Collected: 07/16/19 11:35

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 80.8

**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	<0.040		0.040	0.011	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
<b>Phenanthrene</b>	<b>0.075</b>		0.040	0.0057	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	07/24/19 07:54	07/27/19 13:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	67		31 - 143	07/24/19 07:54	07/27/19 13:33	1
2-Fluorobiphenyl	73		43 - 145	07/24/19 07:54	07/27/19 13:33	1
2-Fluorophenol	112		31 - 166	07/24/19 07:54	07/27/19 13:33	1
Nitrobenzene-d5	71		37 - 147	07/24/19 07:54	07/27/19 13:33	1
Phenol-d5	92		30 - 153	07/24/19 07:54	07/27/19 13:33	1
Terphenyl-d14	100		42 - 157	07/24/19 07:54	07/27/19 13:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.27</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Arsenic</b>	<b>7.5</b>		0.59	0.20	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Barium</b>	<b>48</b>		0.59	0.068	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Beryllium</b>	<b>0.78</b>		0.24	0.056	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Boron</b>	<b>24</b>		3.0	0.28	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Calcium</b>	<b>59000</b>	<b>B</b>	59	10	mg/Kg	☼	07/19/19 08:35	07/23/19 02:51	5
<b>Chromium</b>	<b>18</b>		0.59	0.29	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Cobalt</b>	<b>13</b>		0.30	0.078	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Copper</b>	<b>25</b>		0.59	0.17	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	12	6.2	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Magnesium</b>	<b>28000</b>	<b>B</b>	5.9	2.9	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Manganese</b>	<b>340</b>		0.59	0.086	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Nickel</b>	<b>33</b>		0.59	0.17	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Potassium</b>	<b>4200</b>		30	11	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Silver</b>	<b>2.7</b>		0.30	0.077	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Sodium</b>	<b>240</b>		59	8.8	mg/Kg	☼	07/19/19 08:35	07/23/19 02:47	1
<b>Thallium</b>	<b>1.2</b>		0.59	0.30	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Vanadium</b>	<b>23</b>		0.30	0.070	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1
<b>Zinc</b>	<b>56</b>		1.2	0.52	mg/Kg	☼	07/19/19 08:35	07/20/19 01:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		07/22/19 08:12	07/23/19 19:43	1
Lead	<0.0075		0.0075	0.0075	mg/L		07/22/19 08:12	07/23/19 19:43	1
<b>Manganese</b>	<b>1.6</b>		0.025	0.010	mg/L		07/22/19 08:12	07/23/19 19:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

**Client Sample ID: 2615V2-1-B02-3**

**Lab Sample ID: 500-166838-7**

Date Collected: 07/16/19 11:35

Matrix: Solid

Date Received: 07/17/19 12:30

Percent Solids: 80.8

### 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		07/22/19 08:07	07/24/19 19:38	1
<b>Barium</b>	<b>0.17</b>	<b>J</b>	0.50	0.050	mg/L		07/22/19 08:07	07/24/19 19:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Boron</b>	<b>0.20</b>		0.10	0.050	mg/L		07/26/19 14:43	07/29/19 09:45	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Calcium</b>	<b>24</b>		2.5	0.50	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Chromium</b>	<b>0.036</b>		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Cobalt</b>	<b>0.011</b>	<b>J</b>	0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Iron</b>	<b>20</b>		0.40	0.20	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Lead</b>	<b>0.027</b>		0.0075	0.0075	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Manganese</b>	<b>0.20</b>		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Nickel</b>	<b>0.028</b>		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Potassium</b>	<b>16</b>		2.5	0.50	mg/L		07/22/19 08:07	07/24/19 19:38	1
Selenium	<0.050		0.050	0.020	mg/L		07/22/19 08:07	07/24/19 19:38	1
Silver	<0.025		0.025	0.010	mg/L		07/22/19 08:07	07/24/19 19:38	1
<b>Zinc</b>	<b>0.069</b>	<b>J</b>	0.50	0.020	mg/L		07/22/19 08:07	07/24/19 19:38	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		07/22/19 08:07	07/22/19 22:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L		07/22/19 08:07	07/22/19 22:32	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		07/25/19 10:10	07/26/19 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.027</b>		0.020	0.0067	mg/Kg	☼	07/25/19 14:10	07/26/19 08:57	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.26	mg/Kg	☼	07/26/19 13:30	07/26/19 16:42	1
<b>pH</b>	<b>8.8</b>		0.2	0.2	SU			07/19/19 13:07	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-20

Job ID: 500-166838-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCS <sub>D</sub> 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
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.

### 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.
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 - AE7-20

Job ID: 500-166838-1

## Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	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, ll 3300 Ginger Creek Driv Springfield, IL 62711 217-787-2334      500-166838 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>AE7-20A</u> Project No.: <u>PTB/WO:184-006/20A</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>W. J. Ulewicz</u>	COC No.: <u>1</u> of <u>2</u> Lab Job No.: <u>500-106838</u> Sample Temp: <u>42.3, 45</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
1	2615V2-1-1312	7-16-19	0940	S	X	X					X	X	X	X	X		
2	2615V2-1-1313	7-16-19	0950														
3	2615V2-1-1313-DUP	7-16-19	0955														
4	2615V2-1-1314	7-16-19	1010														
5	2615V2-1-1302-1	7-16-19	1125														
6	2615V2-1-1302-2	7-16-19	1130														
7	2615V2-1-1302-3	7-16-19	1135														
8	2615V2-1-1303-1	7-16-19	1155														
9	2615V2-1-1303-2	7-16-19	1205														
10	2615V2-1-1303-3	7-16-19	1210														
11	2615V2-1-1304-1	7-16-19	1230														
12	TRIP BLANK #2	7-16-19															

Relinquished by: 	Date/Time: 7/16/19 5:00pm	Received by: 	Date/Time: 7/16/19 5:00pm
Relinquished by: 	Date/Time: 7-17-19 1100	Received by: 	Date/Time: 7/17/19 1105
Relinquished by:  TA	Date/Time: 7/17/19 1230	Received by: 	Date/Time: 7/17/19 1230



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-174811-1  
Client Project/Site: IDOT - AE7-028

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
12/27/2019 11:18:00 AM

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 - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B16-1**

**Lab Sample ID: 500-174811-1**

Date Collected: 12/09/19 10:05

Matrix: Solid

Date Received: 12/10/19 10:38

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	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Acetone	<0.019		0.019	0.0084	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	12/10/19 18:05	12/17/19 21:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	12/10/19 18:05	12/17/19 21:33	1
4-Bromofluorobenzene (Surr)	116		75 - 131	12/10/19 18:05	12/17/19 21:33	1
Dibromofluoromethane	91		75 - 126	12/10/19 18:05	12/17/19 21:33	1
Toluene-d8 (Surr)	99		75 - 124	12/10/19 18:05	12/17/19 21:33	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	☼	12/17/19 18:23	12/19/19 11:49	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B16-1**

**Lab Sample ID: 500-174811-1**

Date Collected: 12/09/19 10:05

Matrix: Solid

Date Received: 12/10/19 10:38

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	<0.39		0.39	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2,4-Dimethylphenol	<0.39	*	0.39	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>2-Methylnaphthalene</b>	<b>0.022</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Acenaphthene</b>	<b>0.028</b>	<b>J</b>	0.039	0.0070	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Acenaphthylene</b>	<b>0.014</b>	<b>J</b>	0.039	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Anthracene</b>	<b>0.045</b>		0.039	0.0065	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Benzo[a]anthracene</b>	<b>0.15</b>		0.039	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Benzo[a]pyrene</b>	<b>0.13</b>		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Benzo[b]fluoranthene</b>	<b>0.17</b>		0.039	0.0084	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Benzo[g,h,i]perylene</b>	<b>0.11</b>		0.039	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Benzo[k]fluoranthene</b>	<b>0.076</b>		0.039	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.11</b>	<b>J</b>	0.20	0.071	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Chrysene</b>	<b>0.18</b>		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Dibenz(a,h)anthracene</b>	<b>0.027</b>	<b>J</b>	0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Fluoranthene</b>	<b>0.27</b>		0.039	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Fluorene</b>	<b>0.024</b>	<b>J</b>	0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B16-1**

**Lab Sample ID: 500-174811-1**

Date Collected: 12/09/19 10:05

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 82.9

## 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>0.096</b>		0.039	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Phenanthrene</b>	<b>0.25</b>		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
<b>Pyrene</b>	<b>0.32</b>		0.039	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 11:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	51		31 - 143				12/17/19 18:23	12/19/19 11:49	1
2-Fluorobiphenyl	91		43 - 145				12/17/19 18:23	12/19/19 11:49	1
2-Fluorophenol	75		31 - 166				12/17/19 18:23	12/19/19 11:49	1
Nitrobenzene-d5	91		37 - 147				12/17/19 18:23	12/19/19 11:49	1
Phenol-d5	73		30 - 153				12/17/19 18:23	12/19/19 11:49	1
Terphenyl-d14	91		42 - 157				12/17/19 18:23	12/19/19 11:49	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.76</b>	<b>J F1</b>	1.1	0.22	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Arsenic</b>	<b>7.8</b>	<b>F1</b>	0.56	0.19	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Barium</b>	<b>47</b>		0.56	0.064	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Beryllium</b>	<b>0.59</b>		0.22	0.052	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Boron</b>	<b>16</b>		2.8	0.26	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Cadmium</b>	<b>0.24</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Calcium</b>	<b>99000</b>	<b>B</b>	110	19	mg/Kg	☼	12/14/19 19:48	12/18/19 12:16	10
<b>Chromium</b>	<b>16</b>		0.56	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Cobalt</b>	<b>10</b>		0.28	0.073	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Copper</b>	<b>26</b>	<b>F1</b>	0.56	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Iron</b>	<b>15000</b>		11	5.8	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Lead</b>	<b>21</b>	<b>F1</b>	0.28	0.13	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Magnesium</b>	<b>52000</b>	<b>F2</b>	56	28	mg/Kg	☼	12/14/19 19:48	12/18/19 12:16	10
<b>Manganese</b>	<b>340</b>		0.56	0.081	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Nickel</b>	<b>26</b>		0.56	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Potassium</b>	<b>2400</b>		28	9.9	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Selenium</b>	<b>0.80</b>	<b>F1</b>	0.56	0.33	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Silver</b>	<b>1.4</b>		0.28	0.072	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Sodium</b>	<b>430</b>		56	8.3	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Thallium</b>	<b>0.43</b>	<b>J F1</b>	0.56	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Vanadium</b>	<b>16</b>		0.28	0.066	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	1
<b>Zinc</b>	<b>60</b>	<b>F1</b>	1.1	0.49	mg/Kg	☼	12/14/19 19:48	12/18/19 00:47	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		12/24/19 06:18	12/24/19 15:59	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 15:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 15:59	1
<b>Boron</b>	<b>0.14</b>		0.10	0.050	mg/L		12/24/19 06:18	12/24/19 15:59	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B16-1**

**Lab Sample ID: 500-174811-1**

Date Collected: 12/09/19 10:05

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 82.9

## 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		12/24/19 06:18	12/24/19 15:59	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 15:59	1
<b>Chromium</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 15:59	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 15:59	1
<b>Iron</b>	<b>2.2</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 15:59	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 15:59	1
<b>Manganese</b>	<b>0.021</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 15:59	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 15:59	1
<b>Potassium</b>	<b>2.9</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 15:59	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 15:59	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 15:59	1
<b>Zinc</b>	<b>0.031</b>	<b>J</b>	0.50	0.020	mg/L		12/24/19 06:18	12/24/19 15:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		12/24/19 06:18	12/26/19 15:26	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:26	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		12/24/19 09:15	12/26/19 10:35	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.015</b>	<b>J</b>	0.019	0.0064	mg/Kg	☼	12/19/19 14:20	12/20/19 07:05	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cyanide, Total</b>	<b>1.0</b>	<b>F1</b>	0.58	0.29	mg/Kg	☼	12/20/19 14:10	12/20/19 16:20	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/16/19 12:12	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B16-2**

**Lab Sample ID: 500-174811-2**

Date Collected: 12/09/19 10:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 86.4

## 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	0.00052	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00066	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
1,1-Dichloroethane	<0.0015		0.0015	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
1,1-Dichloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
1,2-Dichloropropane	<0.0015		0.0015	0.00040	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0011	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Acetone	<0.015		0.015	0.0067	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Bromoform	<0.0015		0.0015	0.00045	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Carbon disulfide	<0.0039		0.0039	0.00080	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Carbon tetrachloride	<0.0015		0.0015	0.00045	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Chlorobenzene	<0.0015		0.0015	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Chloroethane	<0.0039		0.0039	0.0011	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Chloroform	<0.0015		0.0015	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00043	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00047	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Dibromochloromethane	<0.0015		0.0015	0.00051	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Ethylbenzene	<0.0015		0.0015	0.00074	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Styrene	<0.0015		0.0015	0.00047	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Tetrachloroethene	<0.0015		0.0015	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Toluene	<0.0015		0.0015	0.00039	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00069	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Trichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Vinyl chloride	<0.0015		0.0015	0.00068	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 21:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	12/10/19 18:05	12/17/19 21:58	1
4-Bromofluorobenzene (Surr)	126		75 - 131	12/10/19 18:05	12/17/19 21:58	1
Dibromofluoromethane	93		75 - 126	12/10/19 18:05	12/17/19 21:58	1
Toluene-d8 (Surr)	100		75 - 124	12/10/19 18:05	12/17/19 21:58	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	☼	12/17/19 18:23	12/19/19 12:16	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B16-2**

**Lab Sample ID: 500-174811-2**

**Date Collected: 12/09/19 10:10**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 86.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2,4-Dimethylphenol	<0.38	*	0.38	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>2-Methylnaphthalene</b>	<b>0.046</b>	<b>J</b>	0.077	0.0070	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Acenaphthylene	<0.038		0.038	0.0050	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>Benzo[a]anthracene</b>	<b>0.034</b>	<b>J</b>	0.038	0.0051	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Benzo[a]pyrene	<0.038		0.038	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>Benzo[b]fluoranthene</b>	<b>0.030</b>	<b>J</b>	0.038	0.0082	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>Benzo[g,h,i]perylene</b>	<b>0.025</b>	<b>J</b>	0.038	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>Benzo[k]fluoranthene</b>	<b>0.015</b>	<b>J</b>	0.038	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Carbazole	<0.19		0.19	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>Chrysene</b>	<b>0.062</b>		0.038	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>Fluoranthene</b>	<b>0.061</b>		0.038	0.0071	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B16-2**

**Lab Sample ID: 500-174811-2**

Date Collected: 12/09/19 10:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 86.4

**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	0.0099	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>Phenanthrene</b>	<b>0.15</b>		0.038	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
<b>Pyrene</b>	<b>0.093</b>		0.038	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 12:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	54		31 - 143				12/17/19 18:23	12/19/19 12:16	1
2-Fluorobiphenyl	104		43 - 145				12/17/19 18:23	12/19/19 12:16	1
2-Fluorophenol	86		31 - 166				12/17/19 18:23	12/19/19 12:16	1
Nitrobenzene-d5	109		37 - 147				12/17/19 18:23	12/19/19 12:16	1
Phenol-d5	86		30 - 153				12/17/19 18:23	12/19/19 12:16	1
Terphenyl-d14	109		42 - 157				12/17/19 18:23	12/19/19 12:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.66</b>	<b>J</b>	1.2	0.22	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Arsenic</b>	<b>5.7</b>		0.58	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Barium</b>	<b>34</b>		0.58	0.066	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Beryllium</b>	<b>0.47</b>		0.23	0.054	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Boron</b>	<b>17</b>		2.9	0.27	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Cadmium</b>	<b>0.20</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Calcium</b>	<b>81000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 12:46	10
<b>Chromium</b>	<b>11</b>		0.58	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Cobalt</b>	<b>9.1</b>		0.29	0.075	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Copper</b>	<b>22</b>		0.58	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Iron</b>	<b>13000</b>		12	6.0	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Lead</b>	<b>16</b>		0.29	0.13	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Magnesium</b>	<b>43000</b>		58	29	mg/Kg	☼	12/14/19 19:48	12/18/19 12:46	10
<b>Manganese</b>	<b>260</b>		0.58	0.084	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Nickel</b>	<b>23</b>		0.58	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Potassium</b>	<b>2600</b>		29	10	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Selenium</b>	<b>0.56</b>	<b>J</b>	0.58	0.34	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Silver</b>	<b>1.3</b>		0.29	0.074	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Sodium</b>	<b>980</b>		58	8.5	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Thallium</b>	<b>0.60</b>		0.58	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Vanadium</b>	<b>15</b>		0.29	0.068	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1
<b>Zinc</b>	<b>48</b>		1.2	0.51	mg/Kg	☼	12/14/19 19:48	12/18/19 01:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.013</b>	<b>J</b>	0.050	0.010	mg/L		12/24/19 06:18	12/24/19 16:03	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:03	1
<b>Boron</b>	<b>0.12</b>		0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B16-2**

**Lab Sample ID: 500-174811-2**

Date Collected: 12/09/19 10:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 86.4

**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		12/24/19 06:18	12/24/19 16:03	1
<b>Calcium</b>	<b>6.4</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:03	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:03	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:03	1
<b>Iron</b>	<b>2.6</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:03	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:03	1
<b>Manganese</b>	<b>0.023</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:03	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:03	1
<b>Potassium</b>	<b>10</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:03	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:03	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:03	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:03	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		12/24/19 06:18	12/26/19 15:28	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:28	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		12/24/19 09:15	12/26/19 10:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>		0.017	0.0057	mg/Kg	☼	12/19/19 14:20	12/20/19 07:07	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.25	mg/Kg	☼	12/20/19 14:10	12/20/19 16:21	1
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			12/16/19 12:15	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-1**

**Lab Sample ID: 500-174811-3**

**Date Collected: 12/09/19 10:15**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 84.6**

## 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	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Acetone	<0.016		0.016	0.0069	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Methylene Chloride	<0.0039		0.0039	0.0016	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 22:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 134				12/10/19 18:05	12/17/19 22:24	1
4-Bromofluorobenzene (Surr)	118		75 - 131				12/10/19 18:05	12/17/19 22:24	1
Dibromofluoromethane	93		75 - 126				12/10/19 18:05	12/17/19 22:24	1
Toluene-d8 (Surr)	99		75 - 124				12/10/19 18:05	12/17/19 22:24	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	☼	12/17/19 18:23	12/19/19 12:43	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-1**

**Lab Sample ID: 500-174811-3**

Date Collected: 12/09/19 10:15

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 84.6

**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	☼	12/17/19 18:23	12/19/19 12:43	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2,4-Dimethylphenol	<0.39	*	0.39	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
<b>2-Methylnaphthalene</b>	<b>0.062</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
<b>Chrysene</b>	<b>0.048</b>		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-1**

**Lab Sample ID: 500-174811-3**

Date Collected: 12/09/19 10:15

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 84.6

**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	☼	12/17/19 18:23	12/19/19 12:43	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
<b>Phenanthrene</b>	<b>0.14</b>		0.039	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 12:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	41		31 - 143				12/17/19 18:23	12/19/19 12:43	1
2-Fluorobiphenyl	92		43 - 145				12/17/19 18:23	12/19/19 12:43	1
2-Fluorophenol	77		31 - 166				12/17/19 18:23	12/19/19 12:43	1
Nitrobenzene-d5	99		37 - 147				12/17/19 18:23	12/19/19 12:43	1
Phenol-d5	77		30 - 153				12/17/19 18:23	12/19/19 12:43	1
Terphenyl-d14	99		42 - 157				12/17/19 18:23	12/19/19 12:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.66</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Arsenic</b>	<b>7.6</b>		0.58	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Barium</b>	<b>35</b>		0.58	0.066	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Beryllium</b>	<b>0.61</b>		0.23	0.054	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Boron</b>	<b>18</b>		2.9	0.27	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Cadmium</b>	<b>0.18</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 12:50	10
<b>Chromium</b>	<b>15</b>		0.58	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Cobalt</b>	<b>13</b>		0.29	0.076	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Copper</b>	<b>24</b>		0.58	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Iron</b>	<b>18000</b>		12	6.0	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Lead</b>	<b>12</b>		0.29	0.13	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Magnesium</b>	<b>25000</b>		5.8	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Manganese</b>	<b>340</b>		0.58	0.084	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Nickel</b>	<b>31</b>		0.58	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Potassium</b>	<b>3200</b>		29	10	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Selenium</b>	<b>0.64</b>		0.58	0.34	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Silver</b>	<b>1.6</b>		0.29	0.075	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Sodium</b>	<b>350</b>		58	8.6	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Thallium</b>	<b>0.61</b>		0.58	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Vanadium</b>	<b>19</b>		0.29	0.068	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	1
<b>Zinc</b>	<b>45</b>		1.2	0.51	mg/Kg	☼	12/14/19 19:48	12/18/19 01:12	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		12/24/19 06:18	12/24/19 16:07	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:07	1
<b>Boron</b>	<b>0.077</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-1**

**Lab Sample ID: 500-174811-3**

Date Collected: 12/09/19 10:15

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 84.6

## 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		12/24/19 06:18	12/24/19 16:07	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:07	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:07	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:07	1
<b>Iron</b>	<b>0.24</b>	<b>J</b>	0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:07	1
<b>Manganese</b>	<b>0.013</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:07	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:07	1
<b>Potassium</b>	<b>2.0</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:07	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:07	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:07	1
<b>Zinc</b>	<b>0.035</b>	<b>J</b>	0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:07	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		12/24/19 06:18	12/26/19 15:30	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:30	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		12/24/19 09:15	12/26/19 10:42	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J</b>	0.018	0.0062	mg/Kg	☼	12/19/19 14:20	12/20/19 07:10	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.29	mg/Kg	☼	12/20/19 14:10	12/20/19 16:22	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/16/19 12:21	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-2**

**Lab Sample ID: 500-174811-4**

Date Collected: 12/09/19 10:20

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

## 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	☼	12/10/19 18:05	12/17/19 22:49	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Carbon disulfide	<0.0042		0.0042	0.00086	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00046	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 22:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	12/10/19 18:05	12/17/19 22:49	1
4-Bromofluorobenzene (Surr)	119		75 - 131	12/10/19 18:05	12/17/19 22:49	1
Dibromofluoromethane	89		75 - 126	12/10/19 18:05	12/17/19 22:49	1
Toluene-d8 (Surr)	100		75 - 124	12/10/19 18:05	12/17/19 22:49	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	☼	12/17/19 18:23	12/19/19 13:11	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-2**

**Lab Sample ID: 500-174811-4**

Date Collected: 12/09/19 10:20

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2,4-Dimethylphenol	<0.39	*	0.39	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
<b>2-Methylnaphthalene</b>	<b>0.062</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
<b>Chrysene</b>	<b>0.048</b>		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-2**

**Lab Sample ID: 500-174811-4**

Date Collected: 12/09/19 10:20

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

**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	<0.039		0.039	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
<b>Phenanthrene</b>	<b>0.16</b>		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	42		31 - 143	12/17/19 18:23	12/19/19 13:11	1
2-Fluorobiphenyl	96		43 - 145	12/17/19 18:23	12/19/19 13:11	1
2-Fluorophenol	77		31 - 166	12/17/19 18:23	12/19/19 13:11	1
Nitrobenzene-d5	98		37 - 147	12/17/19 18:23	12/19/19 13:11	1
Phenol-d5	75		30 - 153	12/17/19 18:23	12/19/19 13:11	1
Terphenyl-d14	96		42 - 157	12/17/19 18:23	12/19/19 13:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.80</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Arsenic</b>	<b>7.9</b>		0.59	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Barium</b>	<b>39</b>		0.59	0.068	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Beryllium</b>	<b>0.64</b>		0.24	0.055	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Boron</b>	<b>20</b>		3.0	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Cadmium</b>	<b>0.17</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Calcium</b>	<b>56000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 12:54	10
<b>Chromium</b>	<b>16</b>		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Cobalt</b>	<b>13</b>		0.30	0.078	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Copper</b>	<b>27</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Iron</b>	<b>19000</b>		12	6.2	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Magnesium</b>	<b>25000</b>		5.9	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Manganese</b>	<b>330</b>		0.59	0.086	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Nickel</b>	<b>33</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Potassium</b>	<b>3400</b>		30	11	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Selenium</b>	<b>0.64</b>		0.59	0.35	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Silver</b>	<b>1.8</b>		0.30	0.077	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Sodium</b>	<b>220</b>		59	8.8	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Thallium</b>	<b>0.61</b>		0.59	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Vanadium</b>	<b>20</b>		0.30	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	1
<b>Zinc</b>	<b>46</b>		1.2	0.52	mg/Kg	☼	12/14/19 19:48	12/18/19 01:28	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		12/24/19 06:18	12/24/19 16:11	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:11	1
<b>Boron</b>	<b>0.087</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-2**

**Lab Sample ID: 500-174811-4**

Date Collected: 12/09/19 10:20

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

**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		12/24/19 06:18	12/24/19 16:11	1
<b>Calcium</b>	<b>19</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:11	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:11	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:11	1
<b>Iron</b>	<b>0.35</b>	<b>J</b>	0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:11	1
<b>Manganese</b>	<b>0.029</b>		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:11	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:11	1
<b>Potassium</b>	<b>1.9</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:11	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:11	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:11	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:11	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		12/24/19 06:18	12/26/19 15:33	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:33	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		12/24/19 09:15	12/26/19 10:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J</b>	0.020	0.0068	mg/Kg	☼	12/19/19 14:20	12/20/19 07:12	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.44		0.44	0.22	mg/Kg	☼	12/20/19 14:10	12/20/19 16:22	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/16/19 12:24	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-3**

**Lab Sample ID: 500-174811-5**

Date Collected: 12/09/19 10:25

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.5

**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	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
<b>Acetone</b>	<b>0.016</b>	<b>J</b>	0.017	0.0074	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	12/10/19 18:05	12/17/19 23:14	1
4-Bromofluorobenzene (Surr)	106		75 - 131	12/10/19 18:05	12/17/19 23:14	1
Dibromofluoromethane	108		75 - 126	12/10/19 18:05	12/17/19 23:14	1
Toluene-d8 (Surr)	98		75 - 124	12/10/19 18:05	12/17/19 23:14	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	☼	12/17/19 18:23	12/19/19 13:38	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-3**

**Lab Sample ID: 500-174811-5**

Date Collected: 12/09/19 10:25

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.5

**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	☼	12/17/19 18:23	12/19/19 13:38	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2,4-Dimethylphenol	<0.39	*	0.39	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
<b>2-Methylnaphthalene</b>	<b>0.046</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
<b>Chrysene</b>	<b>0.077</b>		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
<b>Fluoranthene</b>	<b>0.026</b>	<b>J</b>	0.039	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-3**

**Lab Sample ID: 500-174811-5**

Date Collected: 12/09/19 10:25

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.5

**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	☼	12/17/19 18:23	12/19/19 13:38	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
<b>Phenanthrene</b>	<b>0.17</b>		0.039	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
<b>Pyrene</b>	<b>0.063</b>		0.039	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 13:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	42		31 - 143				12/17/19 18:23	12/19/19 13:38	1
2-Fluorobiphenyl	101		43 - 145				12/17/19 18:23	12/19/19 13:38	1
2-Fluorophenol	82		31 - 166				12/17/19 18:23	12/19/19 13:38	1
Nitrobenzene-d5	98		37 - 147				12/17/19 18:23	12/19/19 13:38	1
Phenol-d5	82		30 - 153				12/17/19 18:23	12/19/19 13:38	1
Terphenyl-d14	103		42 - 157				12/17/19 18:23	12/19/19 13:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.67</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Arsenic</b>	<b>7.7</b>		0.61	0.21	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Barium</b>	<b>38</b>		0.61	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Beryllium</b>	<b>0.63</b>		0.24	0.057	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Boron</b>	<b>19</b>		3.1	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Cadmium</b>	<b>0.22</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Calcium</b>	<b>55000</b>	<b>B</b>	120	21	mg/Kg	☼	12/14/19 19:48	12/18/19 12:59	10
<b>Chromium</b>	<b>16</b>		0.61	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Cobalt</b>	<b>13</b>		0.31	0.080	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Copper</b>	<b>27</b>		0.61	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Iron</b>	<b>19000</b>		12	6.3	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Lead</b>	<b>13</b>		0.31	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Magnesium</b>	<b>25000</b>		6.1	3.0	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Manganese</b>	<b>350</b>		0.61	0.089	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Nickel</b>	<b>34</b>		0.61	0.18	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Potassium</b>	<b>3200</b>		31	11	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Selenium</b>	<b>0.62</b>		0.61	0.36	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Silver</b>	<b>1.7</b>		0.31	0.079	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Sodium</b>	<b>200</b>		61	9.0	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Thallium</b>	<b>0.66</b>		0.61	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Vanadium</b>	<b>20</b>		0.31	0.072	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	1
<b>Zinc</b>	<b>54</b>		1.2	0.54	mg/Kg	☼	12/14/19 19:48	12/18/19 01:32	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		12/24/19 06:18	12/24/19 16:15	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:15	1
<b>Boron</b>	<b>0.071</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-3**

**Lab Sample ID: 500-174811-5**

Date Collected: 12/09/19 10:25

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.5

**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		12/24/19 06:18	12/24/19 16:15	1
<b>Calcium</b>	<b>12</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:15	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:15	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:15	1
<b>Iron</b>	<b>0.25</b>	<b>J</b>	0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:15	1
<b>Manganese</b>	<b>0.015</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:15	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:15	1
<b>Potassium</b>	<b>1.5</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:15	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:15	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:15	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:15	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		12/24/19 06:18	12/26/19 15:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:35	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		12/24/19 09:15	12/26/19 10:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J</b>	0.019	0.0062	mg/Kg	☼	12/19/19 14:20	12/20/19 07:14	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.25	mg/Kg	☼	12/20/19 14:10	12/20/19 16:22	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/16/19 12:27	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-4**

**Lab Sample ID: 500-174811-6**

**Date Collected: 12/09/19 10:30**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 79.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
1,1-Dichloroethane	<0.0019		0.0019	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
<b>Acetone</b>	<b>0.014</b>	<b>J</b>	0.019	0.0083	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Carbon disulfide	<0.0048		0.0048	0.0010	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Ethylbenzene	<0.0019		0.0019	0.00092	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00085	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Vinyl chloride	<0.0019		0.0019	0.00085	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 00:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/10/19 18:05	12/18/19 00:44	1
4-Bromofluorobenzene (Surr)	101		75 - 131	12/10/19 18:05	12/18/19 00:44	1
Dibromofluoromethane	93		75 - 126	12/10/19 18:05	12/18/19 00:44	1
Toluene-d8 (Surr)	99		75 - 124	12/10/19 18:05	12/18/19 00:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-4**

**Lab Sample ID: 500-174811-6**

**Date Collected: 12/09/19 10:30**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 79.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2,4-Dimethylphenol	<0.40	*	0.40	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
<b>2-Methylnaphthalene</b>	<b>0.028</b>	<b>J</b>	0.081	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
<b>Chrysene</b>	<b>0.054</b>		0.040	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-4**

**Lab Sample ID: 500-174811-6**

Date Collected: 12/09/19 10:30

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.7

**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	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
<b>Phenanthrene</b>	<b>0.17</b>		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 14:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	44		31 - 143				12/17/19 18:23	12/19/19 14:05	1
2-Fluorobiphenyl	102		43 - 145				12/17/19 18:23	12/19/19 14:05	1
2-Fluorophenol	80		31 - 166				12/17/19 18:23	12/19/19 14:05	1
Nitrobenzene-d5	100		37 - 147				12/17/19 18:23	12/19/19 14:05	1
Phenol-d5	79		30 - 153				12/17/19 18:23	12/19/19 14:05	1
Terphenyl-d14	107		42 - 157				12/17/19 18:23	12/19/19 14:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.57</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Arsenic</b>	<b>6.8</b>		0.61	0.21	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Barium</b>	<b>34</b>		0.61	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Beryllium</b>	<b>0.63</b>		0.24	0.057	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Boron</b>	<b>20</b>		3.1	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Calcium</b>	<b>56000</b>	<b>B</b>	120	21	mg/Kg	☼	12/14/19 19:48	12/18/19 13:03	10
<b>Chromium</b>	<b>16</b>		0.61	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Cobalt</b>	<b>13</b>		0.31	0.080	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Copper</b>	<b>53</b>		0.61	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Iron</b>	<b>19000</b>		12	6.3	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Lead</b>	<b>13</b>		0.31	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Magnesium</b>	<b>24000</b>		6.1	3.0	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Manganese</b>	<b>320</b>		0.61	0.088	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Nickel</b>	<b>33</b>		0.61	0.18	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Potassium</b>	<b>3300</b>		31	11	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
Selenium	<0.61		0.61	0.36	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Silver</b>	<b>1.8</b>		0.31	0.079	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Sodium</b>	<b>220</b>		61	9.0	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Thallium</b>	<b>0.60</b>	<b>J</b>	0.61	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Vanadium</b>	<b>20</b>		0.31	0.072	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	1
<b>Zinc</b>	<b>50</b>		1.2	0.54	mg/Kg	☼	12/14/19 19:48	12/18/19 01:37	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		12/24/19 06:18	12/24/19 16:19	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:19	1
<b>Boron</b>	<b>0.070</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:19	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B17-4**

**Lab Sample ID: 500-174811-6**

Date Collected: 12/09/19 10:30

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.7

**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		12/24/19 06:18	12/24/19 16:19	1
<b>Calcium</b>	<b>11</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:19	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:19	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:19	1
<b>Iron</b>	<b>0.56</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:19	1
Manganese	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:19	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:19	1
<b>Potassium</b>	<b>2.1 J</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:19	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:19	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:19	1
<b>Zinc</b>	<b>0.020 J</b>		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:19	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		12/24/19 06:18	12/26/19 15:37	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:37	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		12/24/19 09:15	12/26/19 10:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.016 J</b>		0.018	0.0062	mg/Kg	☼	12/19/19 14:20	12/20/19 07:16	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.43		0.43	0.22	mg/Kg	☼	12/20/19 14:10	12/20/19 16:23	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/16/19 12:29	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-1**

**Lab Sample ID: 500-174811-7**

**Date Collected: 12/09/19 10:40**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 85.2**

**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	☼	12/10/19 18:05	12/17/19 19:00	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Bromomethane	<0.0039 *		0.0039	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Chlorobenzene	<0.0016		0.0016	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	12/10/19 18:05	12/17/19 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	12/10/19 18:05	12/17/19 19:00	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/10/19 18:05	12/17/19 19:00	1
Dibromofluoromethane	88		75 - 126	12/10/19 18:05	12/17/19 19:00	1
Toluene-d8 (Surr)	100		75 - 124	12/10/19 18:05	12/17/19 19:00	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	☼	12/17/19 18:23	12/19/19 20:28	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-1**

**Lab Sample ID: 500-174811-7**

Date Collected: 12/09/19 10:40

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2,4-Dichlorophenol	<0.38		0.38	0.091	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2,4-Dimethylphenol	<0.38	*	0.38	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2,4-Dinitrophenol	<0.77		0.77	0.68	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>2-Methylnaphthalene</b>	<b>0.019</b>	<b>J</b>	0.077	0.0071	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
4-Nitrophenol	<0.77		0.77	0.37	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Acenaphthene</b>	<b>0.031</b>	<b>J</b>	0.038	0.0069	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Acenaphthylene</b>	<b>0.038</b>		0.038	0.0051	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Anthracene</b>	<b>0.11</b>		0.038	0.0064	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Benzo[a]anthracene</b>	<b>0.39</b>		0.038	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Benzo[a]pyrene</b>	<b>0.34</b>		0.038	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Benzo[b]fluoranthene</b>	<b>0.52</b>		0.038	0.0083	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Benzo[g,h,i]perylene</b>	<b>0.12</b>		0.038	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Benzo[k]fluoranthene</b>	<b>0.16</b>		0.038	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.070	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Chrysene</b>	<b>0.42</b>		0.038	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Dibenz(a,h)anthracene</b>	<b>0.016</b>	<b>J</b>	0.038	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Fluoranthene</b>	<b>0.66</b>		0.038	0.0071	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Fluorene</b>	<b>0.040</b>		0.038	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Hexachlorobenzene	<0.077		0.077	0.0089	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Hexachlorocyclopentadiene	<0.77		0.77	0.22	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-1**

**Lab Sample ID: 500-174811-7**

Date Collected: 12/09/19 10:40

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 85.2

**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>0.10</b>		0.038	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Pentachlorophenol	<0.77		0.77	0.62	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Phenanthrene</b>	<b>0.51</b>		0.038	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
Phenol	<0.19		0.19	0.085	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	1
<b>Pyrene</b>	<b>0.75</b>		0.038	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 20:28	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	41		31 - 143				12/17/19 18:23	12/19/19 20:28	1
2-Fluorobiphenyl	93		43 - 145				12/17/19 18:23	12/19/19 20:28	1
2-Fluorophenol	76		31 - 166				12/17/19 18:23	12/19/19 20:28	1
Nitrobenzene-d5	74		37 - 147				12/17/19 18:23	12/19/19 20:28	1
Phenol-d5	68		30 - 153				12/17/19 18:23	12/19/19 20:28	1
Terphenyl-d14	95		42 - 157				12/17/19 18:23	12/19/19 20:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.77</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Arsenic</b>	<b>2.4</b>		0.59	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Barium</b>	<b>14</b>		0.59	0.067	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Beryllium</b>	<b>0.24</b>		0.23	0.055	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Boron</b>	<b>12</b>		2.9	0.27	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Calcium</b>	<b>130000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:07	10
<b>Chromium</b>	<b>6.4</b>		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Cobalt</b>	<b>3.4</b>		0.29	0.077	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Copper</b>	<b>9.1</b>		0.59	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Iron</b>	<b>6500</b>		12	6.1	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Lead</b>	<b>12</b>		0.29	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Magnesium</b>	<b>70000</b>		59	29	mg/Kg	☼	12/14/19 19:48	12/18/19 13:07	10
<b>Manganese</b>	<b>190</b>		0.59	0.085	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Nickel</b>	<b>7.6</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Potassium</b>	<b>1300</b>		29	10	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Selenium</b>	<b>0.58</b>	<b>J</b>	0.59	0.34	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Silver</b>	<b>0.91</b>		0.29	0.076	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Sodium</b>	<b>180</b>		59	8.7	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
Thallium	<0.59		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Vanadium</b>	<b>9.8</b>		0.29	0.069	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	1
<b>Zinc</b>	<b>24</b>		1.2	0.51	mg/Kg	☼	12/14/19 19:48	12/18/19 01:41	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		12/24/19 06:18	12/24/19 16:23	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:23	1
<b>Boron</b>	<b>0.069</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-1**

**Lab Sample ID: 500-174811-7**

Date Collected: 12/09/19 10:40

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 85.2

**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		12/24/19 06:18	12/24/19 16:23	1
<b>Calcium</b>	<b>54</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:23	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:23	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:23	1
Iron	<0.40		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:23	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:23	1
Manganese	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:23	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:23	1
<b>Potassium</b>	<b>1.1 J</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:23	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:23	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:23	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:23	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		12/24/19 06:18	12/26/19 15:39	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:39	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		12/24/19 09:15	12/26/19 10:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.063</b>		0.018	0.0058	mg/Kg	☼	12/19/19 14:20	12/20/19 07:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.25	mg/Kg	☼	12/20/19 14:10	12/20/19 16:24	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/16/19 12:32	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-2**

**Lab Sample ID: 500-174811-8**

Date Collected: 12/09/19 10:45

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.0

**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	☼	12/10/19 18:05	12/17/19 19:26	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
<b>Acetone</b>	<b>0.053</b>		0.018	0.0079	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Bromomethane	<0.0046 *		0.0046	0.0017	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	12/10/19 18:05	12/17/19 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/10/19 18:05	12/17/19 19:26	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/10/19 18:05	12/17/19 19:26	1
Dibromofluoromethane	89		75 - 126	12/10/19 18:05	12/17/19 19:26	1
Toluene-d8 (Surr)	99		75 - 124	12/10/19 18:05	12/17/19 19:26	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	☼	12/17/19 18:23	12/19/19 14:33	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-2**

**Lab Sample ID: 500-174811-8**

Date Collected: 12/09/19 10:45

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.0

**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	☼	12/17/19 18:23	12/19/19 14:33	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2,4-Dimethylphenol	<0.40	*	0.40	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
<b>2-Methylnaphthalene</b>	<b>0.068</b>	<b>J</b>	0.081	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
<b>Chrysene</b>	<b>0.050</b>		0.040	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-2**

**Lab Sample ID: 500-174811-8**

Date Collected: 12/09/19 10:45

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.0

**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	☼	12/17/19 18:23	12/19/19 14:33	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
<b>Phenanthrene</b>	<b>0.17</b>		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	38		31 - 143	12/17/19 18:23	12/19/19 14:33	1
2-Fluorobiphenyl	92		43 - 145	12/17/19 18:23	12/19/19 14:33	1
2-Fluorophenol	92		31 - 166	12/17/19 18:23	12/19/19 14:33	1
Nitrobenzene-d5	98		37 - 147	12/17/19 18:23	12/19/19 14:33	1
Phenol-d5	91		30 - 153	12/17/19 18:23	12/19/19 14:33	1
Terphenyl-d14	91		42 - 157	12/17/19 18:23	12/19/19 14:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.76</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Arsenic</b>	<b>7.3</b>		0.59	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Barium</b>	<b>40</b>		0.59	0.068	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Beryllium</b>	<b>0.65</b>		0.24	0.055	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Boron</b>	<b>20</b>		3.0	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Cadmium</b>	<b>0.20</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:11	10
<b>Chromium</b>	<b>17</b>		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Cobalt</b>	<b>13</b>		0.30	0.078	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Copper</b>	<b>26</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Iron</b>	<b>19000</b>		12	6.2	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Magnesium</b>	<b>25000</b>		5.9	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Manganese</b>	<b>330</b>		0.59	0.086	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Nickel</b>	<b>34</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Potassium</b>	<b>3400</b>		30	11	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Selenium</b>	<b>0.77</b>		0.59	0.35	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Silver</b>	<b>1.8</b>		0.30	0.077	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Sodium</b>	<b>250</b>		59	8.8	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Thallium</b>	<b>0.74</b>		0.59	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Vanadium</b>	<b>20</b>		0.30	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	1
<b>Zinc</b>	<b>66</b>		1.2	0.52	mg/Kg	☼	12/14/19 19:48	12/18/19 01:45	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		12/24/19 06:18	12/24/19 16:27	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:27	1
<b>Boron</b>	<b>0.090</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:27	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-2**

**Lab Sample ID: 500-174811-8**

Date Collected: 12/09/19 10:45

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.0

**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		12/24/19 06:18	12/24/19 16:27	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:27	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:27	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:27	1
Iron	<0.40		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:27	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:27	1
<b>Manganese</b>	<b>0.020</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:27	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:27	1
<b>Potassium</b>	<b>1.4</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:27	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:27	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:27	1
<b>Zinc</b>	<b>0.049</b>	<b>J</b>	0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:27	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		12/24/19 06:18	12/26/19 15:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:42	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		12/24/19 09:15	12/26/19 10:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.015</b>	<b>J</b>	0.019	0.0064	mg/Kg	☼	12/19/19 14:20	12/20/19 07:24	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.26	mg/Kg	☼	12/20/19 14:10	12/20/19 16:25	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/16/19 12:35	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-3**

**Lab Sample ID: 500-174811-9**

**Date Collected: 12/09/19 10:50**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 80.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00081	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
<b>Acetone</b>	<b>0.050</b>		0.019	0.0083	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Bromomethane	<0.0047 *		0.0047	0.0018	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Carbon disulfide	<0.0047		0.0047	0.00099	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Methylene Chloride	<0.0047		0.0047	0.0019	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	12/10/19 18:05	12/17/19 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	12/10/19 18:05	12/17/19 19:51	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/10/19 18:05	12/17/19 19:51	1
Dibromofluoromethane	87		75 - 126	12/10/19 18:05	12/17/19 19:51	1
Toluene-d8 (Surr)	99		75 - 124	12/10/19 18:05	12/17/19 19:51	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	☼	12/17/19 18:23	12/19/19 15:00	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-3**

**Lab Sample ID: 500-174811-9**

Date Collected: 12/09/19 10:50

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.1

**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	☼	12/17/19 18:23	12/19/19 15:00	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2,4-Dimethylphenol	<0.39	*	0.39	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
<b>2-Methylnaphthalene</b>	<b>0.066</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
<b>Chrysene</b>	<b>0.048</b>		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-3**

**Lab Sample ID: 500-174811-9**

Date Collected: 12/09/19 10:50

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.1

**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	☼	12/17/19 18:23	12/19/19 15:00	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
<b>Phenanthrene</b>	<b>0.17</b>		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 15:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	38		31 - 143				12/17/19 18:23	12/19/19 15:00	1
2-Fluorobiphenyl	88		43 - 145				12/17/19 18:23	12/19/19 15:00	1
2-Fluorophenol	71		31 - 166				12/17/19 18:23	12/19/19 15:00	1
Nitrobenzene-d5	86		37 - 147				12/17/19 18:23	12/19/19 15:00	1
Phenol-d5	74		30 - 153				12/17/19 18:23	12/19/19 15:00	1
Terphenyl-d14	96		42 - 157				12/17/19 18:23	12/19/19 15:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.81</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Arsenic</b>	<b>7.1</b>		0.59	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Barium</b>	<b>43</b>		0.59	0.068	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Beryllium</b>	<b>0.67</b>		0.24	0.055	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Boron</b>	<b>21</b>		3.0	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Cadmium</b>	<b>0.21</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Calcium</b>	<b>58000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:16	10
<b>Chromium</b>	<b>17</b>		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Cobalt</b>	<b>13</b>		0.30	0.078	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Copper</b>	<b>25</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Iron</b>	<b>19000</b>		12	6.2	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Magnesium</b>	<b>23000</b>		5.9	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Manganese</b>	<b>320</b>		0.59	0.086	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Nickel</b>	<b>34</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Potassium</b>	<b>3500</b>		30	10	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Selenium</b>	<b>0.50</b>	<b>J</b>	0.59	0.35	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Silver</b>	<b>1.9</b>		0.30	0.076	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Sodium</b>	<b>220</b>		59	8.8	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Thallium</b>	<b>0.79</b>		0.59	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Vanadium</b>	<b>21</b>		0.30	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	1
<b>Zinc</b>	<b>53</b>		1.2	0.52	mg/Kg	☼	12/14/19 19:48	12/18/19 01:49	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		12/24/19 06:18	12/24/19 16:31	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:31	1
<b>Boron</b>	<b>0.077</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:31	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-3**

**Lab Sample ID: 500-174811-9**

Date Collected: 12/09/19 10:50

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.1

**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		12/24/19 06:18	12/24/19 16:31	1
<b>Calcium</b>	<b>14</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:31	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:31	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:31	1
<b>Iron</b>	<b>0.26</b>	<b>J</b>	0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:31	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:31	1
<b>Manganese</b>	<b>0.013</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:31	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:31	1
<b>Potassium</b>	<b>1.6</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:31	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:31	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:31	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:31	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		12/24/19 06:18	12/26/19 15:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:49	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		12/24/19 09:15	12/26/19 10:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.014</b>	<b>J</b>	0.020	0.0066	mg/Kg	☼	12/19/19 14:20	12/20/19 07:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.43		0.43	0.22	mg/Kg	☼	12/20/19 14:10	12/20/19 16:25	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/16/19 12:38	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-4**

**Lab Sample ID: 500-174811-10**

**Date Collected: 12/09/19 10:55**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 80.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0023		0.0023	0.00076	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
1,1,2,2-Tetrachloroethane	<0.0023		0.0023	0.00072	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
1,1,2-Trichloroethane	<0.0023		0.0023	0.00097	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
1,1-Dichloroethane	<0.0023		0.0023	0.00078	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
1,1-Dichloroethene	<0.0023		0.0023	0.00078	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
1,2-Dichloroethane	<0.0057		0.0057	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
1,2-Dichloropropane	<0.0023		0.0023	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
1,3-Dichloropropene, Total	<0.0023		0.0023	0.00080	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
2-Butanone (MEK)	<0.0057		0.0057	0.0025	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
2-Hexanone	<0.0057		0.0057	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
4-Methyl-2-pentanone (MIBK)	<0.0057		0.0057	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Acetone	<0.023		0.023	0.0099	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Benzene	<0.0023		0.0023	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Bromodichloromethane	<0.0023		0.0023	0.00046	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Bromoform	<0.0023		0.0023	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Bromomethane	<0.0057		0.0057	0.0021	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Carbon disulfide	<0.0057		0.0057	0.0012	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Carbon tetrachloride	<0.0023		0.0023	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Chlorobenzene	<0.0023		0.0023	0.00084	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Chloroethane	<0.0057		0.0057	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Chloroform	<0.0023		0.0023	0.00079	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Chloromethane	<0.0057		0.0057	0.0023	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
cis-1,2-Dichloroethene	<0.0023		0.0023	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
cis-1,3-Dichloropropene	<0.0023		0.0023	0.00068	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Dibromochloromethane	<0.0023		0.0023	0.00074	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Ethylbenzene	<0.0023		0.0023	0.0011	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Methyl tert-butyl ether	<0.0023		0.0023	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Methylene Chloride	<0.0057		0.0057	0.0022	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Styrene	<0.0023		0.0023	0.00068	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Tetrachloroethene	<0.0023		0.0023	0.00077	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Toluene	<0.0023		0.0023	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
trans-1,2-Dichloroethene	<0.0023		0.0023	0.0010	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
trans-1,3-Dichloropropene	<0.0023		0.0023	0.00080	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Trichloroethene	<0.0023		0.0023	0.00077	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Vinyl chloride	<0.0023		0.0023	0.0010	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1
Xylenes, Total	<0.0045		0.0045	0.00073	mg/Kg	☼	12/10/19 18:05	12/18/19 01:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/10/19 18:05	12/18/19 01:10	1
4-Bromofluorobenzene (Surr)	101		75 - 131	12/10/19 18:05	12/18/19 01:10	1
Dibromofluoromethane	89		75 - 126	12/10/19 18:05	12/18/19 01:10	1
Toluene-d8 (Surr)	95		75 - 124	12/10/19 18:05	12/18/19 01:10	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	☼	12/17/19 18:23	12/19/19 15:28	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-4**

**Lab Sample ID: 500-174811-10**

Date Collected: 12/09/19 10:55

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2,4-Dimethylphenol	<0.41	*	0.41	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
<b>2-Methylnaphthalene</b>	<b>0.060</b>	<b>J</b>	0.083	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
<b>Chrysene</b>	<b>0.044</b>		0.041	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-4**

**Lab Sample ID: 500-174811-10**

Date Collected: 12/09/19 10:55

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.1

**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	<0.041		0.041	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
<b>Phenanthrene</b>	<b>0.15</b>		0.041	0.0057	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Phenol	<0.21		0.21	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Pyrene	<0.041		0.041	0.0082	mg/Kg	☼	12/17/19 18:23	12/19/19 15:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	39		31 - 143				12/17/19 18:23	12/19/19 15:28	1
2-Fluorobiphenyl	84		43 - 145				12/17/19 18:23	12/19/19 15:28	1
2-Fluorophenol	65		31 - 166				12/17/19 18:23	12/19/19 15:28	1
Nitrobenzene-d5	79		37 - 147				12/17/19 18:23	12/19/19 15:28	1
Phenol-d5	63		30 - 153				12/17/19 18:23	12/19/19 15:28	1
Terphenyl-d14	96		42 - 157				12/17/19 18:23	12/19/19 15:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.71</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Arsenic</b>	<b>6.7</b>		0.60	0.21	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Barium</b>	<b>39</b>		0.60	0.069	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Beryllium</b>	<b>0.62</b>		0.24	0.056	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Boron</b>	<b>19</b>		3.0	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Cadmium</b>	<b>0.18</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Calcium</b>	<b>54000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:29	10
<b>Chromium</b>	<b>15</b>		0.60	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Cobalt</b>	<b>14</b>		0.30	0.079	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Copper</b>	<b>24</b>		0.60	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Iron</b>	<b>18000</b>		12	6.3	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Magnesium</b>	<b>21000</b>		6.0	3.0	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Manganese</b>	<b>290</b>		0.60	0.088	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Nickel</b>	<b>34</b>		0.60	0.18	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Potassium</b>	<b>3200</b>		30	11	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Selenium</b>	<b>0.59</b>	<b>J</b>	0.60	0.36	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Silver</b>	<b>2.6</b>		0.30	0.078	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Sodium</b>	<b>220</b>		60	8.9	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Thallium</b>	<b>0.77</b>		0.60	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Vanadium</b>	<b>19</b>		0.30	0.071	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	1
<b>Zinc</b>	<b>55</b>		1.2	0.53	mg/Kg	☼	12/14/19 19:48	12/18/19 01:53	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		12/24/19 06:18	12/24/19 16:43	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:43	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:43	1
<b>Boron</b>	<b>0.086</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-4**

**Lab Sample ID: 500-174811-10**

Date Collected: 12/09/19 10:55

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.1

## 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		12/24/19 06:18	12/24/19 16:43	1
<b>Calcium</b>	<b>10</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:43	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:43	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:43	1
<b>Iron</b>	<b>0.47</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:43	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:43	1
<b>Manganese</b>	<b>0.014</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:43	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:43	1
<b>Potassium</b>	<b>2.1</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:43	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:43	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:43	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:43	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		12/24/19 06:18	12/26/19 15:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:51	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		12/24/19 09:15	12/26/19 11:02	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.016</b>	<b>J</b>	0.019	0.0064	mg/Kg	☼	12/19/19 14:20	12/20/19 07:29	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.28	mg/Kg	☼	12/20/19 14:10	12/20/19 16:25	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/16/19 12:41	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-4 Dup**

**Lab Sample ID: 500-174811-11**

**Date Collected: 12/09/19 10:58**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 81.4**

**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	☼	12/10/19 18:05	12/18/19 01:35	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
<b>Acetone</b>	<b>0.025</b>		0.018	0.0078	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 01:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/10/19 18:05	12/18/19 01:35	1
4-Bromofluorobenzene (Surr)	101		75 - 131	12/10/19 18:05	12/18/19 01:35	1
Dibromofluoromethane	88		75 - 126	12/10/19 18:05	12/18/19 01:35	1
Toluene-d8 (Surr)	99		75 - 124	12/10/19 18:05	12/18/19 01:35	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	☼	12/17/19 18:23	12/19/19 15:55	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-4 Dup**

**Lab Sample ID: 500-174811-11**

**Date Collected: 12/09/19 10:58**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 81.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2,4-Dimethylphenol	<0.39	*	0.39	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
<b>2-Methylnaphthalene</b>	<b>0.047</b>	<b>J</b>	0.080	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
<b>Chrysene</b>	<b>0.048</b>		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-4 Dup**

**Lab Sample ID: 500-174811-11**

Date Collected: 12/09/19 10:58

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.4

## 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	☼	12/17/19 18:23	12/19/19 15:55	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
<b>Phenanthrene</b>	<b>0.15</b>		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 15:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	37		31 - 143				12/17/19 18:23	12/19/19 15:55	1
2-Fluorobiphenyl	84		43 - 145				12/17/19 18:23	12/19/19 15:55	1
2-Fluorophenol	76		31 - 166				12/17/19 18:23	12/19/19 15:55	1
Nitrobenzene-d5	82		37 - 147				12/17/19 18:23	12/19/19 15:55	1
Phenol-d5	75		30 - 153				12/17/19 18:23	12/19/19 15:55	1
Terphenyl-d14	96		42 - 157				12/17/19 18:23	12/19/19 15:55	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.67</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Arsenic</b>	<b>7.2</b>		0.61	0.21	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Barium</b>	<b>37</b>		0.61	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Beryllium</b>	<b>0.61</b>		0.24	0.057	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Boron</b>	<b>19</b>		3.1	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Cadmium</b>	<b>0.23</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Calcium</b>	<b>60000</b>	<b>B</b>	120	21	mg/Kg	☼	12/14/19 19:48	12/18/19 13:33	10
<b>Chromium</b>	<b>16</b>		0.61	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Cobalt</b>	<b>13</b>		0.31	0.080	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Copper</b>	<b>26</b>		0.61	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Iron</b>	<b>19000</b>		12	6.4	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Lead</b>	<b>13</b>		0.31	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Magnesium</b>	<b>26000</b>		6.1	3.0	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Manganese</b>	<b>340</b>		0.61	0.089	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Nickel</b>	<b>32</b>		0.61	0.18	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Potassium</b>	<b>3300</b>		31	11	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Selenium</b>	<b>0.63</b>		0.61	0.36	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Silver</b>	<b>1.7</b>		0.31	0.079	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Sodium</b>	<b>220</b>		61	9.1	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Thallium</b>	<b>0.64</b>		0.61	0.31	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Vanadium</b>	<b>20</b>		0.31	0.072	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	1
<b>Zinc</b>	<b>54</b>		1.2	0.54	mg/Kg	☼	12/14/19 19:48	12/18/19 01:57	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		12/24/19 06:18	12/24/19 16:47	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:47	1
<b>Boron</b>	<b>0.083</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:47	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B18-4 Dup**

**Lab Sample ID: 500-174811-11**

Date Collected: 12/09/19 10:58

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.4

**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		12/24/19 06:18	12/24/19 16:47	1
<b>Calcium</b>	<b>11</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:47	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:47	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:47	1
<b>Iron</b>	<b>0.36 J</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:47	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:47	1
Manganese	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:47	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:47	1
<b>Potassium</b>	<b>1.8 J</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:47	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:47	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:47	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:47	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		12/24/19 06:18	12/26/19 15:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:53	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		12/24/19 09:15	12/26/19 11:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017 J</b>		0.018	0.0059	mg/Kg	☼	12/19/19 14:20	12/20/19 07:37	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.40		0.40	0.20	mg/Kg	☼	12/20/19 14:10	12/20/19 16:26	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/16/19 12:44	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: Trip Blank #3**

**Lab Sample ID: 500-174811-12**

**Date Collected: 12/09/19 00:00**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**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	0.00067	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00064	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00086	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
1,1-Dichloroethane	<0.0020		0.0020	0.00069	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
1,1-Dichloroethene	<0.0020		0.0020	0.00069	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
1,2-Dichloroethane	<0.0050		0.0050	0.0016	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
1,2-Dichloropropane	<0.0020		0.0020	0.00052	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00070	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
2-Butanone (MEK)	<0.0050		0.0050	0.0022	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050	0.0015	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Acetone	<0.020		0.020	0.0087	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Benzene	<0.0020		0.0020	0.00051	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Bromodichloromethane	<0.0020		0.0020	0.00041	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Bromoform	<0.0020		0.0020	0.00058	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Bromomethane	<0.0050		0.0050	0.0019	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Carbon disulfide	<0.0050		0.0050	0.0010	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Carbon tetrachloride	<0.0020		0.0020	0.00058	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Chlorobenzene	<0.0020		0.0020	0.00074	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Chloroethane	<0.0050		0.0050	0.0015	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Chloroform	<0.0020		0.0020	0.00069	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Chloromethane	<0.0050		0.0050	0.0020	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00056	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00060	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Dibromochloromethane	<0.0020		0.0020	0.00065	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Ethylbenzene	<0.0020		0.0020	0.00096	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00059	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Methylene Chloride	<0.0050		0.0050	0.0020	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Styrene	<0.0020		0.0020	0.00060	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Tetrachloroethene	<0.0020		0.0020	0.00068	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Toluene	<0.0020		0.0020	0.00051	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00089	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00070	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Trichloroethene	<0.0020		0.0020	0.00068	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Vinyl chloride	<0.0020		0.0020	0.00089	mg/Kg		12/10/19 18:05	12/18/19 00:19	1
Xylenes, Total	<0.0040		0.0040	0.00064	mg/Kg		12/10/19 18:05	12/18/19 00:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	12/10/19 18:05	12/18/19 00:19	1
4-Bromofluorobenzene (Surr)	96		75 - 131	12/10/19 18:05	12/18/19 00:19	1
Dibromofluoromethane	88		75 - 126	12/10/19 18:05	12/18/19 00:19	1
Toluene-d8 (Surr)	96		75 - 124	12/10/19 18:05	12/18/19 00:19	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-1**

**Lab Sample ID: 500-174811-13**

**Date Collected: 12/09/19 11:10**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 81.2**

**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	0.00060	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
<b>Acetone</b>	<b>0.025</b>		0.018	0.0078	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 02:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	12/10/19 18:05	12/18/19 02:01	1
4-Bromofluorobenzene (Surr)	102		75 - 131	12/10/19 18:05	12/18/19 02:01	1
Dibromofluoromethane	90		75 - 126	12/10/19 18:05	12/18/19 02:01	1
Toluene-d8 (Surr)	98		75 - 124	12/10/19 18:05	12/18/19 02:01	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	☼	12/17/19 18:23	12/19/19 16:22	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-1**

**Lab Sample ID: 500-174811-13**

Date Collected: 12/09/19 11:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

**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	☼	12/17/19 18:23	12/19/19 16:22	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2,4-Dimethylphenol	<0.40	*	0.40	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
<b>2-Methylnaphthalene</b>	<b>0.071</b>	<b>J</b>	0.081	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
<b>Chrysene</b>	<b>0.058</b>		0.040	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-1**

**Lab Sample ID: 500-174811-13**

Date Collected: 12/09/19 11:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

**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	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
<b>Phenanthrene</b>	<b>0.18</b>		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Pyrene	<0.040		0.040	0.0079	mg/Kg	☼	12/17/19 18:23	12/19/19 16:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	40		31 - 143				12/17/19 18:23	12/19/19 16:22	1
2-Fluorobiphenyl	89		43 - 145				12/17/19 18:23	12/19/19 16:22	1
2-Fluorophenol	69		31 - 166				12/17/19 18:23	12/19/19 16:22	1
Nitrobenzene-d5	80		37 - 147				12/17/19 18:23	12/19/19 16:22	1
Phenol-d5	65		30 - 153				12/17/19 18:23	12/19/19 16:22	1
Terphenyl-d14	99		42 - 157				12/17/19 18:23	12/19/19 16:22	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>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Arsenic</b>	<b>8.0</b>		0.59	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Barium</b>	<b>36</b>		0.59	0.067	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Beryllium</b>	<b>0.64</b>		0.24	0.055	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Boron</b>	<b>19</b>		3.0	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Cadmium</b>	<b>0.18</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Calcium</b>	<b>44000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:37	10
<b>Chromium</b>	<b>16</b>		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Cobalt</b>	<b>14</b>		0.30	0.077	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Copper</b>	<b>30</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Iron</b>	<b>19000</b>		12	6.2	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Lead</b>	<b>15</b>		0.30	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Magnesium</b>	<b>21000</b>		5.9	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Manganese</b>	<b>290</b>		0.59	0.086	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Nickel</b>	<b>36</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Potassium</b>	<b>3300</b>		30	10	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Selenium</b>	<b>0.73</b>		0.59	0.35	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Silver</b>	<b>1.8</b>		0.30	0.076	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Sodium</b>	<b>220</b>		59	8.8	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Thallium</b>	<b>0.76</b>		0.59	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Vanadium</b>	<b>20</b>		0.30	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	1
<b>Zinc</b>	<b>45</b>		1.2	0.52	mg/Kg	☼	12/14/19 19:48	12/18/19 02:02	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		12/24/19 06:18	12/24/19 16:51	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:51	1
<b>Boron</b>	<b>0.077</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-1**

**Lab Sample ID: 500-174811-13**

Date Collected: 12/09/19 11:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

## 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		12/24/19 06:18	12/24/19 16:51	1
<b>Calcium</b>	<b>13</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:51	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:51	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:51	1
Iron	<0.40		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:51	1
Manganese	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:51	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:51	1
<b>Potassium</b>	<b>1.2 J</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:51	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:51	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:51	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:51	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		12/24/19 06:18	12/26/19 15:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:55	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		12/24/19 09:15	12/26/19 11:06	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018 J</b>		0.019	0.0064	mg/Kg	☼	12/19/19 14:20	12/20/19 07:39	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	12/20/19 14:10	12/20/19 16:26	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/16/19 12:46	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-2**

**Lab Sample ID: 500-174811-14**

Date Collected: 12/09/19 11:15

Matrix: Solid

Date Received: 12/10/19 10:38

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	<0.0019		0.0019	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00082	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
1,1-Dichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
1,2-Dichloroethane	<0.0048		0.0048	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
2-Butanone (MEK)	<0.0048		0.0048	0.0021	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
2-Hexanone	<0.0048		0.0048	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
4-Methyl-2-pentanone (MIBK)	<0.0048		0.0048	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
<b>Acetone</b>	<b>0.011</b>	<b>J</b>	0.019	0.0083	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Benzene	<0.0019		0.0019	0.00049	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Bromoform	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Bromomethane	<0.0048		0.0048	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Carbon disulfide	<0.0048		0.0048	0.00099	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Chlorobenzene	<0.0019		0.0019	0.00071	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Chloroethane	<0.0048		0.0048	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Chloromethane	<0.0048		0.0048	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Dibromochloromethane	<0.0019		0.0019	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Methylene Chloride	<0.0048		0.0048	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Styrene	<0.0019		0.0019	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00085	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Trichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Vinyl chloride	<0.0019		0.0019	0.00085	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 02:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/10/19 18:05	12/18/19 02:26	1
4-Bromofluorobenzene (Surr)	101		75 - 131	12/10/19 18:05	12/18/19 02:26	1
Dibromofluoromethane	90		75 - 126	12/10/19 18:05	12/18/19 02:26	1
Toluene-d8 (Surr)	97		75 - 124	12/10/19 18:05	12/18/19 02:26	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	☼	12/17/19 18:23	12/19/19 16:49	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-2**

**Lab Sample ID: 500-174811-14**

Date Collected: 12/09/19 11:15

Matrix: Solid

Date Received: 12/10/19 10:38

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	<0.40		0.40	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2,4-Dimethylphenol	<0.40	*	0.40	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
<b>2-Methylnaphthalene</b>	<b>0.084</b>		0.081	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
<b>Dibenzofuran</b>	<b>0.052</b>	<b>J</b>	0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-2**

**Lab Sample ID: 500-174811-14**

Date Collected: 12/09/19 11:15

Matrix: Solid

Date Received: 12/10/19 10:38

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	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
<b>Phenanthrene</b>	<b>0.24</b>		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	36		31 - 143				12/17/19 18:23	12/19/19 16:49	1
2-Fluorobiphenyl	95		43 - 145				12/17/19 18:23	12/19/19 16:49	1
2-Fluorophenol	91		31 - 166				12/17/19 18:23	12/19/19 16:49	1
Nitrobenzene-d5	83		37 - 147				12/17/19 18:23	12/19/19 16:49	1
Phenol-d5	90		30 - 153				12/17/19 18:23	12/19/19 16:49	1
Terphenyl-d14	94		42 - 157				12/17/19 18:23	12/19/19 16:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.53</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Arsenic</b>	<b>6.6</b>		0.58	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Barium</b>	<b>33</b>		0.58	0.066	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Beryllium</b>	<b>0.63</b>		0.23	0.054	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Boron</b>	<b>18</b>		2.9	0.27	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Calcium</b>	<b>59000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:41	10
<b>Chromium</b>	<b>15</b>		0.58	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Cobalt</b>	<b>13</b>		0.29	0.076	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Copper</b>	<b>27</b>		0.58	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Iron</b>	<b>17000</b>		12	6.0	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Lead</b>	<b>14</b>		0.29	0.13	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Magnesium</b>	<b>24000</b>		5.8	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Manganese</b>	<b>330</b>		0.58	0.084	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Nickel</b>	<b>33</b>		0.58	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Potassium</b>	<b>3200</b>		29	10	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Selenium</b>	<b>0.65</b>		0.58	0.34	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Silver</b>	<b>1.8</b>		0.29	0.075	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Sodium</b>	<b>200</b>		58	8.6	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Thallium</b>	<b>0.71</b>		0.58	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Vanadium</b>	<b>19</b>		0.29	0.068	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	1
<b>Zinc</b>	<b>47</b>		1.2	0.51	mg/Kg	☼	12/14/19 19:48	12/18/19 02:06	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		12/24/19 06:18	12/24/19 16:55	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:55	1
<b>Boron</b>	<b>0.11</b>		0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:55	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-2**

**Lab Sample ID: 500-174811-14**

Date Collected: 12/09/19 11:15

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.6

**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		12/24/19 06:18	12/24/19 16:55	1
<b>Calcium</b>	<b>20</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:55	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:55	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:55	1
Iron	<0.40		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:55	1
<b>Manganese</b>	<b>0.024</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:55	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:55	1
<b>Potassium</b>	<b>1.7</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:55	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:55	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:55	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:55	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		12/24/19 06:18	12/26/19 15:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 15:58	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		12/24/19 09:15	12/26/19 11:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J</b>	0.019	0.0064	mg/Kg	☼	12/19/19 14:20	12/20/19 07:41	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.24	mg/Kg	☼	12/20/19 14:10	12/20/19 16:27	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/16/19 12:52	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-3**

**Lab Sample ID: 500-174811-15**

Date Collected: 12/09/19 11:20

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.1

## 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	☼	12/10/19 18:05	12/18/19 02:51	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
1,1,2-Trichloroethane	<0.0020		0.0020	0.00084	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
1,1-Dichloroethane	<0.0020		0.0020	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
1,1-Dichloroethene	<0.0020		0.0020	0.00068	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
1,2-Dichloropropane	<0.0020		0.0020	0.00051	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
1,3-Dichloropropene, Total	<0.0020		0.0020	0.00069	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
<b>Acetone</b>	<b>0.078</b>		0.020	0.0086	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Benzene	<0.0020		0.0020	0.00050	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Bromodichloromethane	<0.0020		0.0020	0.00040	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Bromoform	<0.0020		0.0020	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Bromomethane	<0.0049		0.0049	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Carbon tetrachloride	<0.0020		0.0020	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Chlorobenzene	<0.0020		0.0020	0.00073	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Chloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Chloroform	<0.0020		0.0020	0.00068	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
cis-1,2-Dichloroethene	<0.0020		0.0020	0.00055	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
cis-1,3-Dichloropropene	<0.0020		0.0020	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Dibromochloromethane	<0.0020		0.0020	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Ethylbenzene	<0.0020		0.0020	0.00094	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Methyl tert-butyl ether	<0.0020		0.0020	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Styrene	<0.0020		0.0020	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Tetrachloroethene	<0.0020		0.0020	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Toluene	<0.0020		0.0020	0.00050	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
trans-1,2-Dichloroethene	<0.0020		0.0020	0.00087	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
trans-1,3-Dichloropropene	<0.0020		0.0020	0.00069	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Trichloroethene	<0.0020		0.0020	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Vinyl chloride	<0.0020		0.0020	0.00087	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1
Xylenes, Total	<0.0039		0.0039	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 02:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	12/10/19 18:05	12/18/19 02:51	1
4-Bromofluorobenzene (Surr)	106		75 - 131	12/10/19 18:05	12/18/19 02:51	1
Dibromofluoromethane	88		75 - 126	12/10/19 18:05	12/18/19 02:51	1
Toluene-d8 (Surr)	98		75 - 124	12/10/19 18:05	12/18/19 02:51	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	☼	12/17/19 18:23	12/19/19 17:17	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-3**

**Lab Sample ID: 500-174811-15**

Date Collected: 12/09/19 11:20

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2,4-Dimethylphenol	<0.40	*	0.40	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
<b>2-Methylnaphthalene</b>	<b>0.049</b>	<b>J</b>	0.082	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
<b>Chrysene</b>	<b>0.040</b>		0.040	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-3**

**Lab Sample ID: 500-174811-15**

Date Collected: 12/09/19 11:20

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.1

**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	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
<b>Phenanthrene</b>	<b>0.15</b>		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	36		31 - 143				12/17/19 18:23	12/19/19 17:17	1
2-Fluorobiphenyl	91		43 - 145				12/17/19 18:23	12/19/19 17:17	1
2-Fluorophenol	71		31 - 166				12/17/19 18:23	12/19/19 17:17	1
Nitrobenzene-d5	76		37 - 147				12/17/19 18:23	12/19/19 17:17	1
Phenol-d5	69		30 - 153				12/17/19 18:23	12/19/19 17:17	1
Terphenyl-d14	93		42 - 157				12/17/19 18:23	12/19/19 17:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.72</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Arsenic</b>	<b>8.8</b>		0.60	0.21	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Barium</b>	<b>42</b>		0.60	0.069	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Beryllium</b>	<b>0.68</b>		0.24	0.056	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Boron</b>	<b>21</b>		3.0	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Cadmium</b>	<b>0.18</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Calcium</b>	<b>52000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:46	10
<b>Chromium</b>	<b>17</b>		0.60	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Cobalt</b>	<b>13</b>		0.30	0.079	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Copper</b>	<b>25</b>		0.60	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Iron</b>	<b>20000</b>		12	6.3	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Lead</b>	<b>14</b>		0.30	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Magnesium</b>	<b>23000</b>		6.0	3.0	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Manganese</b>	<b>330</b>		0.60	0.087	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Nickel</b>	<b>34</b>		0.60	0.18	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Potassium</b>	<b>3600</b>		30	11	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Selenium</b>	<b>0.66</b>		0.60	0.35	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Silver</b>	<b>1.8</b>		0.30	0.078	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Sodium</b>	<b>230</b>		60	8.9	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Thallium</b>	<b>0.61</b>		0.60	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Vanadium</b>	<b>21</b>		0.30	0.071	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	1
<b>Zinc</b>	<b>47</b>		1.2	0.53	mg/Kg	☼	12/14/19 19:48	12/18/19 02:18	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		12/24/19 06:18	12/24/19 16:59	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 16:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 16:59	1
<b>Boron</b>	<b>0.092</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 16:59	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-3**

**Lab Sample ID: 500-174811-15**

Date Collected: 12/09/19 11:20

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.1

## 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		12/24/19 06:18	12/24/19 16:59	1
<b>Calcium</b>	<b>13</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:59	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:59	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:59	1
<b>Iron</b>	<b>0.51</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 16:59	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 16:59	1
<b>Manganese</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:59	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:59	1
<b>Potassium</b>	<b>2.2</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 16:59	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 16:59	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 16:59	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		12/24/19 06:18	12/26/19 16:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 16:00	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		12/24/19 09:15	12/26/19 11:09	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J</b>	0.020	0.0066	mg/Kg	☼	12/19/19 14:20	12/20/19 07:44	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	12/20/19 14:10	12/20/19 16:27	1
<b>pH</b>	<b>7.5</b>		0.2	0.2	SU			12/16/19 12:58	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-4**

**Lab Sample ID: 500-174811-16**

Date Collected: 12/09/19 11:25

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.0

## 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	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
<b>Acetone</b>	<b>0.026</b>		0.017	0.0076	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Bromomethane	<0.0044		0.0044	0.0016	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Carbon tetrachloride	<0.0017		0.0017	0.00051	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Chloroform	<0.0017		0.0017	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 03:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	12/10/19 18:05	12/18/19 03:17	1
4-Bromofluorobenzene (Surr)	103		75 - 131	12/10/19 18:05	12/18/19 03:17	1
Dibromofluoromethane	90		75 - 126	12/10/19 18:05	12/18/19 03:17	1
Toluene-d8 (Surr)	99		75 - 124	12/10/19 18:05	12/18/19 03:17	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	☼	12/17/19 18:23	12/19/19 17:44	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-4**

**Lab Sample ID: 500-174811-16**

Date Collected: 12/09/19 11:25

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.0

**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	☼	12/17/19 18:23	12/19/19 17:44	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2,4-Dimethylphenol	<0.40	*	0.40	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2-Chlorophenol	<0.20		0.20	0.070	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
<b>2-Methylnaphthalene</b>	<b>0.065</b>	<b>J</b>	0.082	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.042	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Fluoranthene	<0.040		0.040	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-4**

**Lab Sample ID: 500-174811-16**

Date Collected: 12/09/19 11:25

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.0

**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	☼	12/17/19 18:23	12/19/19 17:44	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
<b>Phenanthrene</b>	<b>0.16</b>		0.040	0.0057	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	12/17/19 18:23	12/19/19 17:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	36		31 - 143				12/17/19 18:23	12/19/19 17:44	1
2-Fluorobiphenyl	85		43 - 145				12/17/19 18:23	12/19/19 17:44	1
2-Fluorophenol	73		31 - 166				12/17/19 18:23	12/19/19 17:44	1
Nitrobenzene-d5	69		37 - 147				12/17/19 18:23	12/19/19 17:44	1
Phenol-d5	70		30 - 153				12/17/19 18:23	12/19/19 17:44	1
Terphenyl-d14	88		42 - 157				12/17/19 18:23	12/19/19 17:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.55</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Arsenic</b>	<b>7.2</b>		0.59	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Barium</b>	<b>41</b>		0.59	0.067	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Beryllium</b>	<b>0.68</b>		0.23	0.055	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Boron</b>	<b>21</b>		2.9	0.27	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Cadmium</b>	<b>0.20</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Calcium</b>	<b>48000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:50	10
<b>Chromium</b>	<b>17</b>		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Cobalt</b>	<b>13</b>		0.29	0.077	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Copper</b>	<b>25</b>		0.59	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Iron</b>	<b>19000</b>		12	6.1	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Lead</b>	<b>13</b>		0.29	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Magnesium</b>	<b>23000</b>		5.9	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Manganese</b>	<b>310</b>		0.59	0.085	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Nickel</b>	<b>34</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Potassium</b>	<b>3700</b>		29	10	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Selenium</b>	<b>0.56</b>	<b>J</b>	0.59	0.35	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Silver</b>	<b>1.9</b>		0.29	0.076	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Sodium</b>	<b>220</b>		59	8.7	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Thallium</b>	<b>0.56</b>	<b>J</b>	0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Vanadium</b>	<b>21</b>		0.29	0.069	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	1
<b>Zinc</b>	<b>55</b>		1.2	0.52	mg/Kg	☼	12/14/19 19:48	12/18/19 02:22	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		12/24/19 06:18	12/24/19 17:03	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 17:03	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 17:03	1
<b>Boron</b>	<b>0.077</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 17:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B19-4**

**Lab Sample ID: 500-174811-16**

Date Collected: 12/09/19 11:25

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.0

**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		12/24/19 06:18	12/24/19 17:03	1
<b>Calcium</b>	<b>11</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:03	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:03	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:03	1
<b>Iron</b>	<b>0.22 J</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 17:03	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 17:03	1
Manganese	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:03	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:03	1
<b>Potassium</b>	<b>1.3 J</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:03	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 17:03	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:03	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 17:03	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		12/24/19 06:18	12/26/19 16:02	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 16:02	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		12/24/19 09:15	12/26/19 11:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.019</b>		0.019	0.0063	mg/Kg	☼	12/19/19 14:20	12/20/19 07:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.43		0.43	0.21	mg/Kg	☼	12/20/19 14:10	12/20/19 16:27	1
<b>pH</b>	<b>7.5</b>		0.2	0.2	SU			12/16/19 13:01	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-1**

**Lab Sample ID: 500-174811-17**

**Date Collected: 12/09/19 11:55**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 82.0**

**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	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
<b>Acetone</b>	<b>0.0097</b>	<b>J</b>	0.017	0.0074	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 03:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	12/10/19 18:05	12/18/19 03:42	1
4-Bromofluorobenzene (Surr)	104		75 - 131	12/10/19 18:05	12/18/19 03:42	1
Dibromofluoromethane	91		75 - 126	12/10/19 18:05	12/18/19 03:42	1
Toluene-d8 (Surr)	98		75 - 124	12/10/19 18:05	12/18/19 03:42	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	☼	12/17/19 18:23	12/19/19 18:11	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-1**

**Lab Sample ID: 500-174811-17**

Date Collected: 12/09/19 11:55

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 82.0

**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	☼	12/17/19 18:23	12/19/19 18:11	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2,4-Dimethylphenol	<0.40	*	0.40	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2,4-Dinitrophenol	<0.81		0.81	0.70	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>2-Methylnaphthalene</b>	<b>0.086</b>		0.081	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Acenaphthene</b>	<b>0.16</b>		0.040	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Anthracene</b>	<b>0.22</b>		0.040	0.0067	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Benzo[a]anthracene</b>	<b>0.43</b>		0.040	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Benzo[a]pyrene</b>	<b>0.37</b>		0.040	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Benzo[b]fluoranthene</b>	<b>0.38</b>		0.040	0.0086	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Benzo[g,h,i]perylene</b>	<b>0.069</b>		0.040	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Benzo[k]fluoranthene</b>	<b>0.25</b>		0.040	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Chrysene</b>	<b>0.48</b>		0.040	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Dibenzofuran</b>	<b>0.17</b>	J	0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Fluoranthene</b>	<b>0.76</b>		0.040	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Fluorene</b>	<b>0.22</b>		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-1**

**Lab Sample ID: 500-174811-17**

Date Collected: 12/09/19 11:55

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 82.0

**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>0.12</b>		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Naphthalene</b>	<b>0.061</b>		0.040	0.0062	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Phenanthrene</b>	<b>0.86</b>		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	1
<b>Pyrene</b>	<b>0.91</b>		0.040	0.0079	mg/Kg	☼	12/17/19 18:23	12/19/19 18:11	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	45		31 - 143				12/17/19 18:23	12/19/19 18:11	1
2-Fluorobiphenyl	91		43 - 145				12/17/19 18:23	12/19/19 18:11	1
2-Fluorophenol	63		31 - 166				12/17/19 18:23	12/19/19 18:11	1
Nitrobenzene-d5	69		37 - 147				12/17/19 18:23	12/19/19 18:11	1
Phenol-d5	63		30 - 153				12/17/19 18:23	12/19/19 18:11	1
Terphenyl-d14	97		42 - 157				12/17/19 18:23	12/19/19 18:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.56</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Arsenic</b>	<b>7.8</b>		0.59	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Barium</b>	<b>34</b>		0.59	0.067	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Beryllium</b>	<b>0.62</b>		0.24	0.055	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Boron</b>	<b>19</b>		2.9	0.27	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Calcium</b>	<b>55000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 13:54	10
<b>Chromium</b>	<b>16</b>		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Cobalt</b>	<b>13</b>		0.29	0.077	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Copper</b>	<b>27</b>		0.59	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Iron</b>	<b>19000</b>		12	6.1	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Lead</b>	<b>14</b>		0.29	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Magnesium</b>	<b>25000</b>		5.9	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Manganese</b>	<b>340</b>		0.59	0.085	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Nickel</b>	<b>34</b>		0.59	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Potassium</b>	<b>3300</b>		29	10	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Selenium</b>	<b>0.63</b>		0.59	0.35	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Silver</b>	<b>1.7</b>		0.29	0.076	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Sodium</b>	<b>280</b>		59	8.7	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Thallium</b>	<b>0.66</b>		0.59	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Vanadium</b>	<b>19</b>		0.29	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	1
<b>Zinc</b>	<b>48</b>		1.2	0.52	mg/Kg	☼	12/14/19 19:48	12/18/19 02:26	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		12/24/19 06:18	12/24/19 17:07	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 17:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 17:07	1
<b>Boron</b>	<b>0.11</b>		0.10	0.050	mg/L		12/24/19 06:18	12/24/19 17:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-1**

**Lab Sample ID: 500-174811-17**

Date Collected: 12/09/19 11:55

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 82.0

## 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		12/24/19 06:18	12/24/19 17:07	1
<b>Calcium</b>	<b>9.5</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:07	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:07	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:07	1
<b>Iron</b>	<b>0.42</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 17:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 17:07	1
Manganese	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:07	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:07	1
<b>Potassium</b>	<b>3.7</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:07	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 17:07	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:07	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 17:07	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		12/24/19 06:18	12/26/19 16:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 16:05	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		12/24/19 09:15	12/26/19 11:12	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.021</b>		0.019	0.0063	mg/Kg	☼	12/19/19 14:20	12/20/19 07:52	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.29	mg/Kg	☼	12/20/19 14:10	12/20/19 16:28	1
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			12/16/19 13:04	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-2**

**Lab Sample ID: 500-174811-18**

Date Collected: 12/09/19 12:00

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

## 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	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
<b>Acetone</b>	<b>0.028</b>		0.018	0.0079	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Carbon disulfide	<0.0045		0.0045	0.00095	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 04:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/10/19 18:05	12/18/19 04:07	1
4-Bromofluorobenzene (Surr)	97		75 - 131	12/10/19 18:05	12/18/19 04:07	1
Dibromofluoromethane	92		75 - 126	12/10/19 18:05	12/18/19 04:07	1
Toluene-d8 (Surr)	97		75 - 124	12/10/19 18:05	12/18/19 04:07	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	☼	12/17/19 18:23	12/19/19 18:38	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-2**

**Lab Sample ID: 500-174811-18**

Date Collected: 12/09/19 12:00

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2,4-Dimethylphenol	<0.39	*	0.39	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
<b>2-Methylnaphthalene</b>	<b>0.063</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
<b>Chrysene</b>	<b>0.052</b>		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-2**

**Lab Sample ID: 500-174811-18**

Date Collected: 12/09/19 12:00

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

**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	<0.039		0.039	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
<b>Phenanthrene</b>	<b>0.17</b>		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 18:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	34		31 - 143				12/17/19 18:23	12/19/19 18:38	1
2-Fluorobiphenyl	87		43 - 145				12/17/19 18:23	12/19/19 18:38	1
2-Fluorophenol	69		31 - 166				12/17/19 18:23	12/19/19 18:38	1
Nitrobenzene-d5	70		37 - 147				12/17/19 18:23	12/19/19 18:38	1
Phenol-d5	67		30 - 153				12/17/19 18:23	12/19/19 18:38	1
Terphenyl-d14	95		42 - 157				12/17/19 18:23	12/19/19 18:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.66</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Arsenic</b>	<b>8.6</b>		0.57	0.19	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Barium</b>	<b>36</b>		0.57	0.065	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Beryllium</b>	<b>0.63</b>		0.23	0.053	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Boron</b>	<b>20</b>		2.8	0.26	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Calcium</b>	<b>54000</b>	<b>B</b>	110	19	mg/Kg	☼	12/14/19 19:48	12/18/19 13:58	10
<b>Chromium</b>	<b>16</b>		0.57	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Cobalt</b>	<b>13</b>		0.28	0.074	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Copper</b>	<b>30</b>		0.57	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Iron</b>	<b>20000</b>		11	5.9	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Lead</b>	<b>15</b>		0.28	0.13	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Magnesium</b>	<b>24000</b>		5.7	2.8	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Manganese</b>	<b>340</b>		0.57	0.082	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Nickel</b>	<b>34</b>		0.57	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Potassium</b>	<b>3400</b>		28	10	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Selenium</b>	<b>0.53</b>	<b>J</b>	0.57	0.33	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Silver</b>	<b>1.7</b>		0.28	0.073	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Sodium</b>	<b>270</b>		57	8.4	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Thallium</b>	<b>0.72</b>		0.57	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Vanadium</b>	<b>20</b>		0.28	0.067	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	1
<b>Zinc</b>	<b>51</b>		1.1	0.50	mg/Kg	☼	12/14/19 19:48	12/18/19 02:30	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		12/24/19 06:18	12/24/19 17:11	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 17:11	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 17:11	1
<b>Boron</b>	<b>0.065</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 17:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-2**

**Lab Sample ID: 500-174811-18**

Date Collected: 12/09/19 12:00

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 81.2

**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		12/24/19 06:18	12/24/19 17:11	1
<b>Calcium</b>	<b>12</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:11	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:11	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:11	1
Iron	<0.40		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 17:11	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 17:11	1
<b>Manganese</b>	<b>0.013</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:11	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:11	1
<b>Potassium</b>	<b>1.2</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:11	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 17:11	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:11	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 17:11	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		12/24/19 06:18	12/26/19 16:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 16:07	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		12/24/19 09:15	12/26/19 11:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.020</b>		0.020	0.0066	mg/Kg	☼	12/19/19 14:20	12/20/19 07:54	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.27	mg/Kg	☼	12/20/19 14:10	12/20/19 16:29	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/16/19 13:06	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-2 Dup**

**Lab Sample ID: 500-174811-19**

**Date Collected: 12/09/19 12:03**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 80.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
<b>Acetone</b>	<b>0.023</b>		0.019	0.0081	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00083	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	12/10/19 18:05	12/18/19 04:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	12/10/19 18:05	12/18/19 04:32	1
4-Bromofluorobenzene (Surr)	99		75 - 131	12/10/19 18:05	12/18/19 04:32	1
Dibromofluoromethane	92		75 - 126	12/10/19 18:05	12/18/19 04:32	1
Toluene-d8 (Surr)	97		75 - 124	12/10/19 18:05	12/18/19 04:32	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	☼	12/17/19 18:23	12/19/19 19:06	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-2 Dup**

**Lab Sample ID: 500-174811-19**

**Date Collected: 12/09/19 12:03**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 80.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2,4-Dimethylphenol	<0.39	*	0.39	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2,4-Dinitrophenol	<0.80		0.80	0.69	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
<b>2-Methylnaphthalene</b>	<b>0.058</b>	<b>J</b>	0.080	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
<b>Chrysene</b>	<b>0.062</b>		0.039	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Hexachlorobenzene	<0.080		0.080	0.0091	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-2 Dup**

**Lab Sample ID: 500-174811-19**

Date Collected: 12/09/19 12:03

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.7

**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	<0.039		0.039	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Pentachlorophenol	<0.80		0.80	0.63	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
<b>Phenanthrene</b>	<b>0.17</b>		0.039	0.0055	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 19:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	36		31 - 143				12/17/19 18:23	12/19/19 19:06	1
2-Fluorobiphenyl	82		43 - 145				12/17/19 18:23	12/19/19 19:06	1
2-Fluorophenol	66		31 - 166				12/17/19 18:23	12/19/19 19:06	1
Nitrobenzene-d5	62		37 - 147				12/17/19 18:23	12/19/19 19:06	1
Phenol-d5	64		30 - 153				12/17/19 18:23	12/19/19 19:06	1
Terphenyl-d14	98		42 - 157				12/17/19 18:23	12/19/19 19:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.57</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Arsenic</b>	<b>7.9</b>		0.57	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Barium</b>	<b>37</b>		0.57	0.066	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Beryllium</b>	<b>0.63</b>		0.23	0.054	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Boron</b>	<b>20</b>		2.9	0.27	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Cadmium</b>	<b>0.27</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Calcium</b>	<b>56000</b>	<b>B</b>	110	19	mg/Kg	☼	12/14/19 19:48	12/18/19 14:03	10
<b>Chromium</b>	<b>17</b>		0.57	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Cobalt</b>	<b>13</b>		0.29	0.075	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Copper</b>	<b>28</b>		0.57	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Iron</b>	<b>19000</b>		11	6.0	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Lead</b>	<b>14</b>		0.29	0.13	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Magnesium</b>	<b>25000</b>		5.7	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Manganese</b>	<b>460</b>		0.57	0.083	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Nickel</b>	<b>34</b>		0.57	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Potassium</b>	<b>3400</b>		29	10	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Selenium</b>	<b>0.73</b>		0.57	0.34	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Silver</b>	<b>1.6</b>		0.29	0.074	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Sodium</b>	<b>330</b>		57	8.5	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Thallium</b>	<b>0.52</b>	<b>J</b>	0.57	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Vanadium</b>	<b>20</b>		0.29	0.068	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	1
<b>Zinc</b>	<b>51</b>		1.1	0.50	mg/Kg	☼	12/14/19 19:48	12/18/19 02:35	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		12/24/19 06:18	12/24/19 17:15	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 17:15	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 17:15	1
<b>Boron</b>	<b>0.099</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 17:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-2 Dup**

**Lab Sample ID: 500-174811-19**

Date Collected: 12/09/19 12:03

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 80.7

**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		12/24/19 06:18	12/24/19 17:15	1
<b>Calcium</b>	<b>11</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:15	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:15	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:15	1
Iron	<0.40		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 17:15	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 17:15	1
<b>Manganese</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:15	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:15	1
<b>Potassium</b>	<b>1.2</b>	<b>J</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:15	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 17:15	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:15	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 17:15	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		12/24/19 06:18	12/26/19 16:09	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 16:09	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		12/24/19 09:15	12/26/19 11:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J</b>	0.020	0.0067	mg/Kg	☼	12/19/19 14:20	12/20/19 07:56	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.42		0.42	0.21	mg/Kg	☼	12/20/19 14:10	12/20/19 16:29	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/16/19 13:09	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-3**

**Lab Sample ID: 500-174811-20**

Date Collected: 12/09/19 12:05

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.5

## 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	☼	12/10/19 18:05	12/18/19 04:58	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
<b>Acetone</b>	<b>0.018</b>		0.018	0.0078	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	12/10/19 18:05	12/18/19 04:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	12/10/19 18:05	12/18/19 04:58	1
4-Bromofluorobenzene (Surr)	101		75 - 131	12/10/19 18:05	12/18/19 04:58	1
Dibromofluoromethane	89		75 - 126	12/10/19 18:05	12/18/19 04:58	1
Toluene-d8 (Surr)	98		75 - 124	12/10/19 18:05	12/18/19 04:58	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	☼	12/17/19 18:23	12/19/19 19:33	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-3**

**Lab Sample ID: 500-174811-20**

Date Collected: 12/09/19 12:05

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.5

**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	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2,4-Dimethylphenol	<0.40	*	0.40	0.15	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
<b>2-Methylnaphthalene</b>	<b>0.075</b>	<b>J</b>	0.081	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-3**

**Lab Sample ID: 500-174811-20**

Date Collected: 12/09/19 12:05

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.5

**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	☼	12/17/19 18:23	12/19/19 19:33	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
<b>Phenanthrene</b>	<b>0.14</b>		0.040	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 19:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	36		31 - 143				12/17/19 18:23	12/19/19 19:33	1
2-Fluorobiphenyl	88		43 - 145				12/17/19 18:23	12/19/19 19:33	1
2-Fluorophenol	69		31 - 166				12/17/19 18:23	12/19/19 19:33	1
Nitrobenzene-d5	67		37 - 147				12/17/19 18:23	12/19/19 19:33	1
Phenol-d5	68		30 - 153				12/17/19 18:23	12/19/19 19:33	1
Terphenyl-d14	96		42 - 157				12/17/19 18:23	12/19/19 19:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.67</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Arsenic</b>	<b>7.0</b>		0.58	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Barium</b>	<b>43</b>		0.58	0.067	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Beryllium</b>	<b>0.68</b>		0.23	0.054	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Boron</b>	<b>21</b>		2.9	0.27	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Cadmium</b>	<b>0.17</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Calcium</b>	<b>54000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 14:07	10
<b>Chromium</b>	<b>17</b>		0.58	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Cobalt</b>	<b>13</b>		0.29	0.076	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Copper</b>	<b>26</b>		0.58	0.16	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Iron</b>	<b>19000</b>		12	6.1	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Lead</b>	<b>13</b>		0.29	0.13	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Magnesium</b>	<b>22000</b>		5.8	2.9	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Manganese</b>	<b>310</b>		0.58	0.085	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Nickel</b>	<b>34</b>		0.58	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Potassium</b>	<b>3600</b>		29	10	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Selenium</b>	<b>0.48</b>	<b>J</b>	0.58	0.34	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Silver</b>	<b>2.0</b>		0.29	0.075	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Sodium</b>	<b>220</b>		58	8.6	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Thallium</b>	<b>0.74</b>		0.58	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Vanadium</b>	<b>21</b>		0.29	0.069	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	1
<b>Zinc</b>	<b>53</b>		1.2	0.51	mg/Kg	☼	12/14/19 19:48	12/18/19 02:39	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		12/24/19 06:18	12/24/19 17:19	1
Barium	<0.50		0.50	0.050	mg/L		12/24/19 06:18	12/24/19 17:19	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 17:19	1
<b>Boron</b>	<b>0.082</b>	<b>J</b>	0.10	0.050	mg/L		12/24/19 06:18	12/24/19 17:19	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-3**

**Lab Sample ID: 500-174811-20**

Date Collected: 12/09/19 12:05

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.5

## 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		12/24/19 06:18	12/24/19 17:19	1
<b>Calcium</b>	<b>12</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:19	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:19	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:19	1
<b>Iron</b>	<b>0.46</b>		0.40	0.20	mg/L		12/24/19 06:18	12/24/19 17:19	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 17:19	1
Manganese	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:19	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:19	1
<b>Potassium</b>	<b>2.3 J</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:19	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 17:19	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:19	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 17:19	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		12/24/19 06:18	12/26/19 16:18	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 16:18	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		12/24/19 09:15	12/26/19 11:17	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017 J</b>		0.020	0.0066	mg/Kg	☼	12/19/19 14:20	12/20/19 07:58	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	12/20/19 14:10	12/20/19 16:30	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/16/19 13:12	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-4**

**Lab Sample ID: 500-174811-21**

**Date Collected: 12/09/19 12:10**

**Matrix: Solid**

**Date Received: 12/10/19 10:38**

**Percent Solids: 79.7**

**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	☼	12/10/19 18:05	12/18/19 05:23	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
<b>Acetone</b>	<b>0.011</b>	<b>J</b>	0.018	0.0080	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Toluene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00082	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Vinyl chloride	<0.0018		0.0018	0.00082	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	12/10/19 18:05	12/18/19 05:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/10/19 18:05	12/18/19 05:23	1
4-Bromofluorobenzene (Surr)	99		75 - 131	12/10/19 18:05	12/18/19 05:23	1
Dibromofluoromethane	90		75 - 126	12/10/19 18:05	12/18/19 05:23	1
Toluene-d8 (Surr)	96		75 - 124	12/10/19 18:05	12/18/19 05:23	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	0.044	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-4**

**Lab Sample ID: 500-174811-21**

Date Collected: 12/09/19 12:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2,4-Dimethylphenol	<0.41	*	0.41	0.16	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
<b>2-Methylnaphthalene</b>	<b>0.058</b>	<b>J</b>	0.083	0.0076	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
2-Nitrophenol	<0.41		0.41	0.098	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Benzo[a]anthracene	<0.041		0.041	0.0056	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Fluoranthene	<0.041		0.041	0.0077	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-4**

**Lab Sample ID: 500-174811-21**

Date Collected: 12/09/19 12:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.7

## 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	<0.041		0.041	0.011	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Naphthalene	<0.041		0.041	0.0064	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
<b>Phenanthrene</b>	<b>0.15</b>		0.041	0.0058	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Phenol	<0.21		0.21	0.092	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Pyrene	<0.041		0.041	0.0082	mg/Kg	☼	12/17/19 18:23	12/19/19 20:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	38		31 - 143				12/17/19 18:23	12/19/19 20:01	1
2-Fluorobiphenyl	94		43 - 145				12/17/19 18:23	12/19/19 20:01	1
2-Fluorophenol	75		31 - 166				12/17/19 18:23	12/19/19 20:01	1
Nitrobenzene-d5	69		37 - 147				12/17/19 18:23	12/19/19 20:01	1
Phenol-d5	70		30 - 153				12/17/19 18:23	12/19/19 20:01	1
Terphenyl-d14	101		42 - 157				12/17/19 18:23	12/19/19 20:01	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>	1.2	0.23	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Arsenic</b>	<b>7.1</b>		0.60	0.20	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Barium</b>	<b>40</b>		0.60	0.068	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Beryllium</b>	<b>0.65</b>		0.24	0.056	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Boron</b>	<b>20</b>		3.0	0.28	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Cadmium</b>	<b>0.18</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Calcium</b>	<b>52000</b>	<b>B</b>	120	20	mg/Kg	☼	12/14/19 19:48	12/18/19 14:22	10
<b>Chromium</b>	<b>17</b>		0.60	0.29	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Cobalt</b>	<b>13</b>		0.30	0.078	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Copper</b>	<b>25</b>		0.60	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Iron</b>	<b>19000</b>		12	6.2	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Lead</b>	<b>16</b>		0.30	0.14	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Magnesium</b>	<b>23000</b>		6.0	3.0	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Manganese</b>	<b>320</b>		0.60	0.086	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Nickel</b>	<b>33</b>		0.60	0.17	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Potassium</b>	<b>3400</b>		30	11	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Selenium</b>	<b>0.80</b>		0.60	0.35	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Silver</b>	<b>1.8</b>		0.30	0.077	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Sodium</b>	<b>220</b>		60	8.8	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Thallium</b>	<b>0.71</b>		0.60	0.30	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Vanadium</b>	<b>20</b>		0.30	0.070	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	1
<b>Zinc</b>	<b>53</b>		1.2	0.52	mg/Kg	☼	12/14/19 19:48	12/18/19 02:43	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		12/24/19 06:18	12/24/19 17:36	1
<b>Barium</b>	<b>0.052</b>	<b>J</b>	0.50	0.050	mg/L		12/24/19 06:18	12/24/19 17:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/24/19 06:18	12/24/19 17:36	1
<b>Boron</b>	<b>0.11</b>		0.10	0.050	mg/L		12/24/19 06:18	12/24/19 17:36	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

**Client Sample ID: 2615V2-1-B21-4**

**Lab Sample ID: 500-174811-21**

Date Collected: 12/09/19 12:10

Matrix: Solid

Date Received: 12/10/19 10:38

Percent Solids: 79.7

## 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		12/24/19 06:18	12/24/19 17:36	1
<b>Calcium</b>	<b>11</b>	<b>F1</b>	2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:36	1
Chromium	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:36	1
Cobalt	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:36	1
<b>Iron</b>	<b>1.0</b>	<b>F1</b>	0.40	0.20	mg/L		12/24/19 06:18	12/24/19 17:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/24/19 06:18	12/24/19 17:36	1
<b>Manganese</b>	<b>0.012</b>	<b>J</b>	0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:36	1
Nickel	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:36	1
<b>Potassium</b>	<b>3.5</b>		2.5	0.50	mg/L		12/24/19 06:18	12/24/19 17:36	1
Selenium	<0.050		0.050	0.020	mg/L		12/24/19 06:18	12/24/19 17:36	1
Silver	<0.025		0.025	0.010	mg/L		12/24/19 06:18	12/24/19 17:36	1
Zinc	<0.50		0.50	0.020	mg/L		12/24/19 06:18	12/24/19 17:36	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		12/24/19 06:18	12/26/19 16:21	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/24/19 06:18	12/26/19 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		12/24/19 09:15	12/26/19 11:22	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.015</b>	<b>J</b>	0.020	0.0068	mg/Kg	☼	12/19/19 14:20	12/20/19 08:01	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	12/20/19 14:10	12/20/19 16:30	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/16/19 13:15	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174811-1

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

### Metals

Qualifier	Qualifier Description
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.

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

## 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 - AE7-028

Job ID: 500-174811-1

## 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.

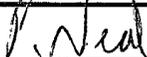
Analysis Method	Prep Method	Matrix	Analyte
6020A	3010A	Solid	Antimony
6020A	3010A	Solid	Thallium
7470A	7470A	Solid	Mercury
8260B		Water	1,3-Dichloropropene, Total
8260B	5035	Solid	1,3-Dichloropropene, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

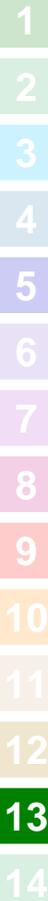
# CHAIN OF CUSTODY RECORD

<b>Client Contact</b> Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334      500-174811 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>AET-028A</u> Project No.: <u>PTB/WO:184-006/03A</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>MARC DIMATTEO</u>	COC No.: <u>1</u> of <u>2</u> Lab Job No.: <u>500-174811</u> Sample Temp: <u>0.6 → 16.3 °C</u> Matrix Key: <ul style="list-style-type: none"> <li>W: Water</li> <li>S: Soil</li> <li>SL: Sludge</li> <li>S: Sediment</li> <li>L: Leachate</li> <li>DW: Drinking Water</li> <li>OL: Oil</li> <li>O: Other</li> </ul>
---	---	--	--	--

**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	2615V2-1-B16-1	12-9	1005	S	X	X					X	X	X	X	X				
2	2615V2-1-B16-2		1010																
3	2615V2-1-B17-1		1015																
4	2615V2-1-B17-2		1020																
5	2615V2-1-B17-3		1025																
6	2615V2-1-B17-4		1030																
7	2615V2-1-B18-1		1040																
8	2615V2-1-B18-2		1045																
9	2615V2-1-B18-3		1050																
10	2615V2-1-B18-4		1055																
11	2615V2-1-B18-4 DUP		1058																
12	TRIP BLANK #3	12-9		S	X														

Relinquished by: 	Date/Time: 12/9/19 15:30	Received by: 	Date/Time: 12/9/19 15:30
Relinquished by: 	Date/Time: 12/10/19 9:45	Received by: 	Date/Time: 12/10/19 9:45
Relinquished by: 	Date/Time: 12/10/19 1038	Received by: 	Date/Time: 12/10/19 1038



# CHAIN OF CUSTODY RECORD

2-48qt 1-36qt.

<b>Client Contact</b>	<b>Laboratory</b>	<b>Project Name:</b> <u>ACT-23A</u>	<b>COC No.:</b> <u>2</u> of <u>2</u>
Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com	<b>Lab:</b> Test America - Chicago <b>Address:</b> 2417 Bond Street University Park, IL 60484 <b>Phone:</b> 708-534-5200 <b>Contact:</b> Dick Wright email: richard.wright@testamericainc.com	<b>Project No.:</b> <u>PTBLWO: 184-006/23A</u> <b>TAT:</b> <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 <b>Sampler:</b> <u>MARC DIMATTEO</u>	<b>Lab Job No.:</b> <u>500-174811</u> <b>Sample Temp:</b> <u>0.6, 1.6, 3.7, 1.4</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																
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

**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	2615V2-1-B19-1	12-9	1110	S	X	X					X	X	X	X	X		
14	2615V2-1-B19-2		1115														
15	2615V2-1-B19-3		1120														
16	2615V2-1-B19-4		1125														
17	2615V2-1-B21-1		1135														
18	2615V2-1-B21-2		1200														
19	2615V2-1-B21-2DWP		1203														
20	2615V2-1-B21-3		1205														
21	2615V2-1-B21-4		1210														
<del>2615V2-1-B21-5 TRIP BLANKS</del>																	
22	2615V2-1-G20		1345	W	X	X					X	X	X				
23	TRIP BLANK #7			W	X												

Relinquished by: <i>[Signature]</i>	Date/Time: 12/9/19 15:30	Received by: <i>[Signature]</i>	Date/Time: 12/9/19 15:30
Relinquished by: <i>[Signature]</i>	Date/Time: 12/10/19 9:45	Received by: <i>[Signature]</i>	Date/Time: 12/10/19 9:45
Relinquished by: <i>[Signature]</i>	Date/Time: 12/10/19 10:38	Received by: <i>[Signature]</i>	Date/Time: 12/10/19 10:38

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-174692-1  
Client Project/Site: IDOT - AE7-028  
Revision: 1

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

Attn: Ms. Colleen Grey



Authorized for release by:  
1/7/2020 9:18:06 AM

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 - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-1**

**Lab Sample ID: 500-174692-5**

Date Collected: 12/06/19 13:35

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 88.0

**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	☼	12/07/19 12:45	12/16/19 22:29	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
<b>Acetone</b>	<b>0.012</b>	<b>J</b>	0.016	0.0068	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Bromoform	<0.0016		0.0016	0.00045	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Chlorobenzene	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Chloromethane	<0.0039	*	0.0039	0.0016	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00043	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Ethylbenzene	<0.0016		0.0016	0.00074	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	12/07/19 12:45	12/16/19 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	12/07/19 12:45	12/16/19 22:29	1
4-Bromofluorobenzene (Surr)	100		75 - 131	12/07/19 12:45	12/16/19 22:29	1
Dibromofluoromethane	94		75 - 126	12/07/19 12:45	12/16/19 22:29	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 12:45	12/16/19 22:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.041	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-1**

**Lab Sample ID: 500-174692-5**

Date Collected: 12/06/19 13:35

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 88.0

**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	☼	12/16/19 16:48	12/18/19 19:07	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>2-Methylnaphthalene</b>	<b>0.072</b>	<b>J *</b>	0.076	0.0069	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Acenaphthene</b>	<b>0.095</b>		0.037	0.0068	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Acenaphthylene</b>	<b>0.047</b>		0.037	0.0050	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Anthracene</b>	<b>0.33</b>		0.037	0.0063	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Benzo[a]anthracene</b>	<b>1.1</b>		0.037	0.0051	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Benzo[a]pyrene</b>	<b>1.1</b>		0.037	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Benzo[b]fluoranthene</b>	<b>1.4</b>		0.037	0.0081	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Benzo[g,h,i]perylene</b>	<b>0.35</b>		0.037	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Benzo[k]fluoranthene</b>	<b>0.68</b>		0.037	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Carbazole</b>	<b>0.13</b>	<b>J</b>	0.19	0.094	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Chrysene</b>	<b>1.2</b>		0.037	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Dibenz(a,h)anthracene</b>	<b>0.12</b>		0.037	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Dibenzofuran</b>	<b>0.066</b>	<b>J</b>	0.19	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Fluoranthene</b>	<b>1.8</b>		0.037	0.0070	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Fluorene</b>	<b>0.11</b>		0.037	0.0053	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-1**

**Lab Sample ID: 500-174692-5**

Date Collected: 12/06/19 13:35

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 88.0

**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>0.40</b>		0.037	0.0098	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Naphthalene</b>	<b>0.073</b>		0.037	0.0058	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Phenanthrene</b>	<b>1.4</b>		0.037	0.0052	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	1
<b>Pyrene</b>	<b>2.2</b>		0.037	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 19:07	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	43		31 - 143				12/16/19 16:48	12/18/19 19:07	1
2-Fluorobiphenyl	91		43 - 145				12/16/19 16:48	12/18/19 19:07	1
2-Fluorophenol	82		31 - 166				12/16/19 16:48	12/18/19 19:07	1
Nitrobenzene-d5	82		37 - 147				12/16/19 16:48	12/18/19 19:07	1
Phenol-d5	81		30 - 153				12/16/19 16:48	12/18/19 19:07	1
Terphenyl-d14	100		42 - 157				12/16/19 16:48	12/18/19 19:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>1.0</b>	<b>J B</b>	1.1	0.21	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Arsenic</b>	<b>6.6</b>		0.55	0.19	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Barium</b>	<b>69</b>		0.55	0.063	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Beryllium</b>	<b>0.48</b>	<b>B</b>	0.22	0.052	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Boron</b>	<b>12</b>		2.8	0.26	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Cadmium</b>	<b>0.45</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Calcium</b>	<b>88000</b>	<b>B</b>	110	19	mg/Kg	☼	12/13/19 18:01	12/17/19 11:45	10
<b>Chromium</b>	<b>11</b>	<b>B</b>	0.55	0.27	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Cobalt</b>	<b>5.6</b>		0.28	0.072	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Copper</b>	<b>36</b>		0.55	0.15	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Iron</b>	<b>11000</b>		11	5.7	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Lead</b>	<b>170</b>		0.28	0.13	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Magnesium</b>	<b>49000</b>		55	27	mg/Kg	☼	12/13/19 18:01	12/17/19 11:45	10
<b>Manganese</b>	<b>210</b>		0.55	0.080	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Nickel</b>	<b>14</b>		0.55	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Potassium</b>	<b>1300</b>		28	9.8	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Selenium</b>	<b>0.52</b>	<b>J</b>	0.55	0.32	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Silver</b>	<b>1.4</b>		0.28	0.071	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Sodium</b>	<b>290</b>		55	8.2	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
Thallium	<0.55		0.55	0.28	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Vanadium</b>	<b>12</b>		0.28	0.065	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1
<b>Zinc</b>	<b>160</b>		1.1	0.48	mg/Kg	☼	12/13/19 18:01	12/16/19 16:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:44	12/20/19 09:40	1
<b>Lead</b>	<b>0.11</b>		0.0075	0.0075	mg/L		12/19/19 15:44	12/20/19 09:40	1
<b>Manganese</b>	<b>2.6</b>		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 09:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-1**

**Lab Sample ID: 500-174692-5**

Date Collected: 12/06/19 13:35

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016	J	0.050	0.010	mg/L		12/17/19 14:54	12/18/19 10:59	1
Barium	0.30	J	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 10:56	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 10:59	1
Boron	1.2	B	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 10:59	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/17/19 14:54	12/18/19 10:59	1
Calcium	26		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 10:59	1
Chromium	0.056		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 10:59	1
Cobalt	0.022	J	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 10:56	1
Iron	44		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 10:59	1
Lead	0.31		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 10:56	1
Manganese	0.33		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 10:56	1
Nickel	0.057	B	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 10:56	1
Potassium	17		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 10:56	1
Selenium	<0.050	^	0.050	0.020	mg/L		12/17/19 14:54	12/18/19 10:59	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 10:59	1
Zinc	0.46	J	0.50	0.020	mg/L		12/17/19 14:54	12/18/19 10:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		12/17/19 14:54	12/18/19 17:20	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00027		0.00020	0.00020	mg/L		12/18/19 15:25	12/19/19 10:52	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.10	B	0.018	0.0061	mg/Kg	☼	12/13/19 14:40	12/16/19 09:36	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.25	mg/Kg	☼	12/17/19 10:50	12/17/19 15:44	1
pH	8.3		0.2	0.2	SU			12/13/19 15:10	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-2**

**Lab Sample ID: 500-174692-6**

Date Collected: 12/06/19 13:38

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.3

## 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	0.00058	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Chloromethane	<0.0043 *		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	12/07/19 12:45	12/16/19 22:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	12/07/19 12:45	12/16/19 22:55	1
4-Bromofluorobenzene (Surr)	102		75 - 131	12/07/19 12:45	12/16/19 22:55	1
Dibromofluoromethane	97		75 - 126	12/07/19 12:45	12/16/19 22:55	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 12:45	12/16/19 22:55	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	☼	12/16/19 16:48	12/18/19 13:13	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-2**

**Lab Sample ID: 500-174692-6**

Date Collected: 12/06/19 13:38

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
<b>2-Methylnaphthalene</b>	<b>0.033</b>	<b>J *</b>	0.083	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
<b>Chrysene</b>	<b>0.041</b>		0.041	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-2**

**Lab Sample ID: 500-174692-6**

Date Collected: 12/06/19 13:38

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.3

**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	☼	12/16/19 16:48	12/18/19 13:13	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
<b>Phenanthrene</b>	<b>0.12</b>		0.041	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
<b>Pyrene</b>	<b>0.020</b>	<b>J</b>	0.041	0.0081	mg/Kg	☼	12/16/19 16:48	12/18/19 13:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	26	X	31 - 143				12/16/19 16:48	12/18/19 13:13	1
2-Fluorobiphenyl	79		43 - 145				12/16/19 16:48	12/18/19 13:13	1
2-Fluorophenol	65		31 - 166				12/16/19 16:48	12/18/19 13:13	1
Nitrobenzene-d5	80		37 - 147				12/16/19 16:48	12/18/19 13:13	1
Phenol-d5	67		30 - 153				12/16/19 16:48	12/18/19 13:13	1
Terphenyl-d14	87		42 - 157				12/16/19 16:48	12/18/19 13:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.49</b>	<b>J B</b>	1.2	0.24	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Arsenic</b>	<b>8.0</b>		0.61	0.21	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Barium</b>	<b>38</b>		0.61	0.069	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Beryllium</b>	<b>0.93</b>	<b>B</b>	0.24	0.057	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Boron</b>	<b>20</b>		3.0	0.28	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Cadmium</b>	<b>0.082</b>	<b>J B</b>	0.12	0.022	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Calcium</b>	<b>46000</b>	<b>B</b>	120	21	mg/Kg	☼	12/13/19 18:01	12/17/19 11:49	10
<b>Chromium</b>	<b>18</b>	<b>B</b>	0.61	0.30	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Cobalt</b>	<b>15</b>		0.30	0.080	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Copper</b>	<b>35</b>		0.61	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Iron</b>	<b>22000</b>		12	6.3	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Lead</b>	<b>16</b>		0.30	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Magnesium</b>	<b>20000</b>		6.1	3.0	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Manganese</b>	<b>330</b>		0.61	0.088	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Nickel</b>	<b>39</b>		0.61	0.18	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Potassium</b>	<b>3900</b>		30	11	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Selenium</b>	<b>0.49</b>	<b>J</b>	0.61	0.36	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Silver</b>	<b>2.4</b>		0.30	0.078	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Sodium</b>	<b>270</b>		61	9.0	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Thallium</b>	<b>0.87</b>		0.61	0.30	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Vanadium</b>	<b>22</b>		0.30	0.072	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	1
<b>Zinc</b>	<b>54</b>		1.2	0.53	mg/Kg	☼	12/13/19 18:01	12/16/19 16:19	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		12/17/19 14:54	12/18/19 11:03	1
<b>Barium</b>	<b>0.13</b>	<b>J</b>	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 11:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:03	1
<b>Boron</b>	<b>1.5</b>	<b>B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-2**

**Lab Sample ID: 500-174692-6**

Date Collected: 12/06/19 13:38

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.3

**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		12/17/19 14:54	12/18/19 11:03	1
<b>Calcium</b>	<b>28</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:03	1
Chromium	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:03	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:00	1
<b>Iron</b>	<b>1.2</b>		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:03	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 11:00	1
<b>Manganese</b>	<b>0.049</b>		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:00	1
Nickel	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:00	1
<b>Potassium</b>	<b>3.8</b>		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 11:00	1
Selenium	<0.050 ^		0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:03	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:03	1
<b>Zinc</b>	<b>0.082 J</b>		0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:03	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		12/17/19 14:54	12/18/19 17:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:24	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		12/18/19 15:25	12/19/19 10:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J B</b>	0.020	0.0067	mg/Kg	☼	12/13/19 14:40	12/16/19 09:38	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.25	mg/Kg	☼	12/17/19 10:50	12/17/19 15:44	1
<b>pH</b>	<b>8.1</b>		0.2	0.2	SU			12/13/19 15:15	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-3**

**Lab Sample ID: 500-174692-7**

Date Collected: 12/06/19 13:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.3

## 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	0.00058	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Chloromethane	<0.0043 *		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 12:45	12/16/19 23:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	12/07/19 12:45	12/16/19 23:20	1
4-Bromofluorobenzene (Surr)	96		75 - 131	12/07/19 12:45	12/16/19 23:20	1
Dibromofluoromethane	95		75 - 126	12/07/19 12:45	12/16/19 23:20	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 12:45	12/16/19 23:20	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	☼	12/16/19 16:48	12/18/19 16:23	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-3**

**Lab Sample ID: 500-174692-7**

Date Collected: 12/06/19 13:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2,4-Dimethylphenol	<0.41		0.41	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
<b>2-Methylnaphthalene</b>	<b>0.061</b>	<b>J *</b>	0.082	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Acenaphthene	<0.041		0.041	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
<b>Chrysene</b>	<b>0.026</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Fluorene	<0.041		0.041	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Hexachlorobenzene	<0.082		0.082	0.0095	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-3**

**Lab Sample ID: 500-174692-7**

Date Collected: 12/06/19 13:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.3

**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	☼	12/16/19 16:48	12/18/19 16:23	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Pentachlorophenol	<0.82		0.82	0.66	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
<b>Phenanthrene</b>	<b>0.13</b>		0.041	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
<b>Pyrene</b>	<b>0.023</b>	<b>J</b>	0.041	0.0081	mg/Kg	☼	12/16/19 16:48	12/18/19 16:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	50		31 - 143				12/16/19 16:48	12/18/19 16:23	1
2-Fluorobiphenyl	89		43 - 145				12/16/19 16:48	12/18/19 16:23	1
2-Fluorophenol	75		31 - 166				12/16/19 16:48	12/18/19 16:23	1
Nitrobenzene-d5	85		37 - 147				12/16/19 16:48	12/18/19 16:23	1
Phenol-d5	74		30 - 153				12/16/19 16:48	12/18/19 16:23	1
Terphenyl-d14	100		42 - 157				12/16/19 16:48	12/18/19 16:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.67</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Arsenic</b>	<b>6.9</b>		0.60	0.21	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Barium</b>	<b>44</b>		0.60	0.068	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Beryllium</b>	<b>0.81</b>	<b>B</b>	0.24	0.056	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Boron</b>	<b>21</b>		3.0	0.28	mg/Kg	☼	12/13/19 18:01	12/17/19 11:53	1
<b>Cadmium</b>	<b>0.10</b>	<b>J B</b>	0.12	0.022	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Calcium</b>	<b>63000</b>	<b>B</b>	120	20	mg/Kg	☼	12/13/19 18:01	12/17/19 11:57	10
<b>Chromium</b>	<b>17</b>	<b>B</b>	0.60	0.30	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Cobalt</b>	<b>13</b>		0.30	0.079	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Copper</b>	<b>29</b>		0.60	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Iron</b>	<b>20000</b>		12	6.2	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Magnesium</b>	<b>25000</b>		6.0	3.0	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Manganese</b>	<b>400</b>		0.60	0.087	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Nickel</b>	<b>34</b>		0.60	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Potassium</b>	<b>3700</b>		30	11	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Selenium</b>	<b>0.56</b>	<b>J</b>	0.60	0.35	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Silver</b>	<b>2.3</b>		0.30	0.077	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Sodium</b>	<b>200</b>		60	8.9	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Thallium</b>	<b>0.86</b>		0.60	0.30	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Vanadium</b>	<b>21</b>		0.30	0.071	mg/Kg	☼	12/13/19 18:01	12/16/19 16:31	1
<b>Zinc</b>	<b>50</b>		1.2	0.53	mg/Kg	☼	12/13/19 18:01	12/17/19 11:53	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		12/17/19 14:54	12/18/19 11:08	1
<b>Barium</b>	<b>0.13</b>	<b>J</b>	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 11:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:08	1
<b>Boron</b>	<b>1.2</b>	<b>B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:08	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-3**

**Lab Sample ID: 500-174692-7**

Date Collected: 12/06/19 13:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.3

**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		12/17/19 14:54	12/18/19 11:08	1
<b>Calcium</b>	<b>25</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:08	1
Chromium	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:08	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:04	1
<b>Iron</b>	<b>2.2</b>		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 11:04	1
<b>Manganese</b>	<b>0.049</b>		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:04	1
Nickel	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:04	1
<b>Potassium</b>	<b>4.2</b>		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 11:04	1
Selenium	<0.050 ^		0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:08	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:08	1
<b>Zinc</b>	<b>0.095 J</b>		0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:08	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		12/17/19 14:54	12/18/19 17:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:27	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		12/18/19 15:25	12/19/19 10:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J B</b>	0.018	0.0059	mg/Kg	☼	12/13/19 14:40	12/16/19 09:40	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.26	mg/Kg	☼	12/17/19 10:50	12/17/19 15:45	1
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			12/13/19 15:17	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-4**

**Lab Sample ID: 500-174692-8**

Date Collected: 12/06/19 13:45

Matrix: Solid

Date Received: 12/06/19 16:30

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	0.00059	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Chloromethane	<0.0044 *		0.0044	0.0018	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	12/07/19 12:45	12/16/19 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	12/07/19 12:45	12/16/19 23:46	1
4-Bromofluorobenzene (Surr)	95		75 - 131	12/07/19 12:45	12/16/19 23:46	1
Dibromofluoromethane	98		75 - 126	12/07/19 12:45	12/16/19 23:46	1
Toluene-d8 (Surr)	92		75 - 124	12/07/19 12:45	12/16/19 23:46	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	☼	12/16/19 16:48	12/18/19 16:51	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-4**

**Lab Sample ID: 500-174692-8**

Date Collected: 12/06/19 13:45

Matrix: Solid

Date Received: 12/06/19 16:30

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	<0.41		0.41	0.094	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
<b>2-Methylnaphthalene</b>	<b>0.054</b>	<b>J *</b>	0.083	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
<b>Chrysene</b>	<b>0.024</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-4**

**Lab Sample ID: 500-174692-8**

Date Collected: 12/06/19 13:45

Matrix: Solid

Date Received: 12/06/19 16:30

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	<0.041		0.041	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
<b>Phenanthrene</b>	<b>0.096</b>		0.041	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Phenol	<0.21		0.21	0.092	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1
Pyrene	<0.041		0.041	0.0082	mg/Kg	☼	12/16/19 16:48	12/18/19 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	41		31 - 143	12/16/19 16:48	12/18/19 16:51	1
2-Fluorobiphenyl	87		43 - 145	12/16/19 16:48	12/18/19 16:51	1
2-Fluorophenol	82		31 - 166	12/16/19 16:48	12/18/19 16:51	1
Nitrobenzene-d5	86		37 - 147	12/16/19 16:48	12/18/19 16:51	1
Phenol-d5	80		30 - 153	12/16/19 16:48	12/18/19 16:51	1
Terphenyl-d14	101		42 - 157	12/16/19 16:48	12/18/19 16:51	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</b>	1.2	0.24	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Arsenic</b>	<b>7.4</b>		0.61	0.21	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Barium</b>	<b>45</b>		0.61	0.069	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Beryllium</b>	<b>0.83</b>	<b>B</b>	0.24	0.057	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Boron</b>	<b>22</b>		3.0	0.28	mg/Kg	☼	12/13/19 18:01	12/17/19 12:01	1
<b>Cadmium</b>	<b>0.080</b>	<b>J B</b>	0.12	0.022	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Calcium</b>	<b>55000</b>	<b>B</b>	120	21	mg/Kg	☼	12/13/19 18:01	12/17/19 12:05	10
<b>Chromium</b>	<b>18</b>	<b>B</b>	0.61	0.30	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Cobalt</b>	<b>14</b>		0.30	0.079	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Copper</b>	<b>30</b>		0.61	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Iron</b>	<b>21000</b>		12	6.3	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Lead</b>	<b>13</b>		0.30	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Magnesium</b>	<b>22000</b>		6.1	3.0	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Manganese</b>	<b>350</b>		0.61	0.088	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Nickel</b>	<b>36</b>		0.61	0.18	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Potassium</b>	<b>3700</b>		30	11	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Selenium</b>	<b>0.55</b>	<b>J</b>	0.61	0.36	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Silver</b>	<b>2.3</b>		0.30	0.078	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Sodium</b>	<b>210</b>		61	9.0	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Thallium</b>	<b>0.92</b>		0.61	0.30	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Vanadium</b>	<b>22</b>		0.30	0.071	mg/Kg	☼	12/13/19 18:01	12/16/19 16:35	1
<b>Zinc</b>	<b>63</b>		1.2	0.53	mg/Kg	☼	12/13/19 18:01	12/17/19 12:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.20		0.20	0.20	mg/L		12/19/19 15:44	12/20/19 09:44	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B25-4**

**Lab Sample ID: 500-174692-8**

Date Collected: 12/06/19 13:45

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.9

**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		12/17/19 14:54	12/18/19 11:12	1
<b>Barium</b>	<b>0.17</b>	<b>J</b>	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 11:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:12	1
<b>Boron</b>	<b>1.4</b>	<b>B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:12	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/17/19 14:54	12/18/19 11:12	1
<b>Calcium</b>	<b>27</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:12	1
<b>Chromium</b>	<b>0.015</b>	<b>J</b>	0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:12	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:08	1
<b>Iron</b>	<b>5.2</b>		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 11:08	1
<b>Manganese</b>	<b>0.089</b>		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:08	1
<b>Nickel</b>	<b>0.010</b>	<b>J B</b>	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:08	1
<b>Potassium</b>	<b>6.3</b>		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 11:08	1
Selenium	<0.050	^	0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:12	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:12	1
<b>Zinc</b>	<b>0.082</b>	<b>J</b>	0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:12	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		12/17/19 14:54	12/18/19 17:31	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:31	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		12/18/19 15:25	12/19/19 10:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J B</b>	0.020	0.0066	mg/Kg	☼	12/13/19 14:40	12/16/19 09:46	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.31	mg/Kg	☼	12/17/19 10:50	12/17/19 15:45	1
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			12/13/19 15:19	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-1**

**Lab Sample ID: 500-174692-9**

Date Collected: 12/06/19 13:50

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 82.7

## 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	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Acetone	<0.016		0.016	0.0072	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Bromomethane	<0.0041		0.0041	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Chlorobenzene	<0.0016		0.0016	0.00061	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Chloromethane	<0.0041 *		0.0041	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Ethylbenzene	<0.0016		0.0016	0.00079	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Styrene	<0.0016		0.0016	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	12/07/19 12:45	12/17/19 00:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 134	12/07/19 12:45	12/17/19 00:11	1
4-Bromofluorobenzene (Surr)	98		75 - 131	12/07/19 12:45	12/17/19 00:11	1
Dibromofluoromethane	96		75 - 126	12/07/19 12:45	12/17/19 00:11	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 12:45	12/17/19 00:11	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	0.043	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-1**

**Lab Sample ID: 500-174692-9**

Date Collected: 12/06/19 13:50

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>2-Methylnaphthalene</b>	<b>0.049</b>	<b>J *</b>	0.080	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Acenaphthene</b>	<b>0.029</b>	<b>J</b>	0.040	0.0072	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Acenaphthylene</b>	<b>0.019</b>	<b>J</b>	0.040	0.0053	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Anthracene</b>	<b>0.077</b>		0.040	0.0067	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Benzo[a]anthracene</b>	<b>0.25</b>		0.040	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Benzo[a]pyrene</b>	<b>0.29</b>		0.040	0.0077	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Benzo[b]fluoranthene</b>	<b>0.33</b>		0.040	0.0086	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Benzo[g,h,i]perylene</b>	<b>0.12</b>		0.040	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Benzo[k]fluoranthene</b>	<b>0.20</b>		0.040	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.19</b>	<b>J</b>	0.20	0.073	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Chrysene</b>	<b>0.38</b>		0.040	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Dibenz(a,h)anthracene</b>	<b>0.036</b>	<b>J</b>	0.040	0.0077	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Fluoranthene</b>	<b>0.47</b>		0.040	0.0074	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Fluorene</b>	<b>0.029</b>	<b>J</b>	0.040	0.0056	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-1**

**Lab Sample ID: 500-174692-9**

Date Collected: 12/06/19 13:50

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 82.7

**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>0.13</b>		0.040	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Phenanthrene</b>	<b>0.37</b>		0.040	0.0056	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
<b>Pyrene</b>	<b>0.60</b>		0.040	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 17:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	59		31 - 143				12/16/19 16:48	12/18/19 17:18	1
2-Fluorobiphenyl	95		43 - 145				12/16/19 16:48	12/18/19 17:18	1
2-Fluorophenol	72		31 - 166				12/16/19 16:48	12/18/19 17:18	1
Nitrobenzene-d5	84		37 - 147				12/16/19 16:48	12/18/19 17:18	1
Phenol-d5	75		30 - 153				12/16/19 16:48	12/18/19 17:18	1
Terphenyl-d14	102		42 - 157				12/16/19 16:48	12/18/19 17:18	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</b>	1.2	0.22	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Arsenic</b>	<b>7.5</b>		0.58	0.20	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Barium</b>	<b>74</b>		0.58	0.066	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Beryllium</b>	<b>0.72</b>	<b>B</b>	0.23	0.054	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Boron</b>	<b>19</b>		2.9	0.27	mg/Kg	☼	12/13/19 18:01	12/17/19 12:18	1
<b>Cadmium</b>	<b>0.35</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Calcium</b>	<b>30000</b>	<b>B</b>	12	2.0	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Chromium</b>	<b>18</b>	<b>B</b>	0.58	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Cobalt</b>	<b>13</b>		0.29	0.076	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Copper</b>	<b>44</b>		0.58	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Iron</b>	<b>21000</b>		12	6.0	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Lead</b>	<b>110</b>		0.29	0.13	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Magnesium</b>	<b>17000</b>		5.8	2.9	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Manganese</b>	<b>310</b>		0.58	0.084	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Nickel</b>	<b>36</b>		0.58	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Potassium</b>	<b>3100</b>		29	10	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Selenium</b>	<b>1.0</b>		0.58	0.34	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Silver</b>	<b>2.5</b>		0.29	0.075	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Sodium</b>	<b>220</b>		58	8.5	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Thallium</b>	<b>0.98</b>		0.58	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Vanadium</b>	<b>22</b>		0.29	0.068	mg/Kg	☼	12/13/19 18:01	12/16/19 16:39	1
<b>Zinc</b>	<b>110</b>		1.2	0.51	mg/Kg	☼	12/13/19 18:01	12/17/19 12:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:44	12/20/19 09:49	1
<b>Lead</b>	<b>0.0084</b>		0.0075	0.0075	mg/L		12/19/19 15:44	12/20/19 09:49	1
<b>Manganese</b>	<b>0.80</b>		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 09:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-1**

**Lab Sample ID: 500-174692-9**

Date Collected: 12/06/19 13:50

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 82.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.017	J	0.050	0.010	mg/L		12/17/19 14:54	12/18/19 11:16	1
Barium	0.24	J	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 11:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:16	1
Boron	1.2	B	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:16	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/17/19 14:54	12/18/19 11:16	1
Calcium	29		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:16	1
Chromium	0.059		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:16	1
Cobalt	0.018	J	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:12	1
Iron	41		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:16	1
Lead	0.15		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 11:12	1
Manganese	0.25		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:12	1
Nickel	0.055	B	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:12	1
Potassium	20		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 11:12	1
Selenium	<0.050	^	0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:16	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:16	1
Zinc	0.26	J	0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:16	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		12/17/19 14:54	12/18/19 17:42	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00022		0.00020	0.00020	mg/L		12/18/19 15:25	12/19/19 10:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.16	B F1	0.018	0.0061	mg/Kg	☼	12/13/19 14:40	12/16/19 09:49	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.60		0.60	0.30	mg/Kg	☼	12/17/19 10:50	12/17/19 15:46	1
pH	7.6		0.2	0.2	SU			12/13/19 15:22	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-2**

**Lab Sample ID: 500-174692-10**

Date Collected: 12/06/19 13:53

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.7

**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	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Chloromethane	<0.0043 *		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 00:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	12/07/19 12:45	12/17/19 00:37	1
4-Bromofluorobenzene (Surr)	90		75 - 131	12/07/19 12:45	12/17/19 00:37	1
Dibromofluoromethane	102		75 - 126	12/07/19 12:45	12/17/19 00:37	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 12:45	12/17/19 00:37	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	☼	12/16/19 16:48	12/18/19 17:45	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-2**

**Lab Sample ID: 500-174692-10**

Date Collected: 12/06/19 13:53

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
<b>2-Methylnaphthalene</b>	<b>0.074</b>	<b>J *</b>	0.081	0.0074	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-2**

**Lab Sample ID: 500-174692-10**

Date Collected: 12/06/19 13:53

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.7

**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	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
<b>Phenanthrene</b>	<b>0.13</b>		0.040	0.0056	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	1
<b>Pyrene</b>	<b>0.023</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	12/16/19 16:48	12/18/19 17:45	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	47		31 - 143				12/16/19 16:48	12/18/19 17:45	1
2-Fluorobiphenyl	98		43 - 145				12/16/19 16:48	12/18/19 17:45	1
2-Fluorophenol	74		31 - 166				12/16/19 16:48	12/18/19 17:45	1
Nitrobenzene-d5	86		37 - 147				12/16/19 16:48	12/18/19 17:45	1
Phenol-d5	78		30 - 153				12/16/19 16:48	12/18/19 17:45	1
Terphenyl-d14	105		42 - 157				12/16/19 16:48	12/18/19 17:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.56</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Arsenic</b>	<b>9.3</b>		0.59	0.20	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Barium</b>	<b>36</b>		0.59	0.067	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Beryllium</b>	<b>0.85</b>	<b>B</b>	0.24	0.055	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Boron</b>	<b>18</b>		2.9	0.27	mg/Kg	☼	12/13/19 18:01	12/17/19 12:22	1
<b>Cadmium</b>	<b>0.045</b>	<b>J B</b>	0.12	0.021	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Calcium</b>	<b>51000</b>	<b>B</b>	120	20	mg/Kg	☼	12/13/19 18:01	12/17/19 12:26	10
<b>Chromium</b>	<b>16</b>	<b>B</b>	0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Cobalt</b>	<b>17</b>		0.29	0.077	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Copper</b>	<b>34</b>		0.59	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Iron</b>	<b>22000</b>		12	6.1	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Lead</b>	<b>17</b>		0.29	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Magnesium</b>	<b>22000</b>		5.9	2.9	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Manganese</b>	<b>350</b>		0.59	0.085	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Nickel</b>	<b>41</b>		0.59	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Potassium</b>	<b>3200</b>		29	10	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Selenium</b>	<b>0.50</b>	<b>J</b>	0.59	0.35	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Silver</b>	<b>2.0</b>		0.29	0.076	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Sodium</b>	<b>230</b>		59	8.7	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Thallium</b>	<b>1.3</b>		0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Vanadium</b>	<b>19</b>		0.29	0.069	mg/Kg	☼	12/13/19 18:01	12/16/19 16:43	1
<b>Zinc</b>	<b>47</b>		1.2	0.52	mg/Kg	☼	12/13/19 18:01	12/17/19 12:22	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		12/17/19 14:54	12/18/19 11:20	1
<b>Barium</b>	<b>0.092</b>	<b>J</b>	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 11:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:20	1
<b>Boron</b>	<b>1.0</b>	<b>B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:20	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-2**

**Lab Sample ID: 500-174692-10**

Date Collected: 12/06/19 13:53

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.7

### 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		12/17/19 14:54	12/18/19 11:20	1
<b>Calcium</b>	<b>27</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:20	1
Chromium	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:20	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:16	1
<b>Iron</b>	<b>1.3</b>		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:20	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 11:16	1
<b>Manganese</b>	<b>0.032</b>		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:16	1
Nickel	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:16	1
<b>Potassium</b>	<b>4.1</b>		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 11:16	1
Selenium	<0.050 ^		0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:20	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:20	1
<b>Zinc</b>	<b>0.099 J</b>		0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:20	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		12/17/19 14:54	12/18/19 17:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:46	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		12/18/19 15:25	12/19/19 11:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J B</b>	0.018	0.0059	mg/Kg	☼	12/13/19 14:40	12/16/19 09:57	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.23	mg/Kg	☼	12/17/19 10:50	12/17/19 15:46	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/13/19 15:24	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-3**

**Lab Sample ID: 500-174692-11**

Date Collected: 12/06/19 13:55

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.7

## 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	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
<b>Acetone</b>	<b>0.035</b>		0.017	0.0073	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Bromomethane	<0.0042 *		0.0042	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	12/07/19 12:45	12/17/19 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	12/07/19 12:45	12/17/19 15:36	1
4-Bromofluorobenzene (Surr)	111		75 - 131	12/07/19 12:45	12/17/19 15:36	1
Dibromofluoromethane	87		75 - 126	12/07/19 12:45	12/17/19 15:36	1
Toluene-d8 (Surr)	100		75 - 124	12/07/19 12:45	12/17/19 15:36	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	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-3**

**Lab Sample ID: 500-174692-11**

Date Collected: 12/06/19 13:55

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
<b>2-Methylnaphthalene</b>	<b>0.023</b>	<b>J *</b>	0.082	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
<b>Chrysene</b>	<b>0.023</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-3**

**Lab Sample ID: 500-174692-11**

Date Collected: 12/06/19 13:55

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.7

## 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	<0.040		0.040	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
<b>Phenanthrene</b>	<b>0.070</b>		0.040	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
<b>Pyrene</b>	<b>0.015</b>	<b>J</b>	0.040	0.0081	mg/Kg	☼	12/16/19 16:48	12/18/19 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	35		31 - 143				12/16/19 16:48	12/18/19 18:12	1
2-Fluorobiphenyl	93		43 - 145				12/16/19 16:48	12/18/19 18:12	1
2-Fluorophenol	75		31 - 166				12/16/19 16:48	12/18/19 18:12	1
Nitrobenzene-d5	80		37 - 147				12/16/19 16:48	12/18/19 18:12	1
Phenol-d5	72		30 - 153				12/16/19 16:48	12/18/19 18:12	1
Terphenyl-d14	99		42 - 157				12/16/19 16:48	12/18/19 18:12	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</b>	1.1	0.22	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Arsenic</b>	<b>7.2</b>		0.57	0.20	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Barium</b>	<b>37</b>		0.57	0.065	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Beryllium</b>	<b>0.69</b>	<b>B</b>	0.23	0.053	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Boron</b>	<b>17</b>		2.9	0.27	mg/Kg	☼	12/13/19 18:01	12/17/19 12:30	1
<b>Cadmium</b>	<b>0.082</b>	<b>J B</b>	0.11	0.021	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Calcium</b>	<b>60000</b>	<b>B</b>	110	19	mg/Kg	☼	12/13/19 18:01	12/17/19 12:34	10
<b>Chromium</b>	<b>16</b>	<b>B</b>	0.57	0.28	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Cobalt</b>	<b>13</b>		0.29	0.075	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Copper</b>	<b>28</b>		0.57	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Iron</b>	<b>20000</b>		11	5.9	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Lead</b>	<b>14</b>		0.29	0.13	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Magnesium</b>	<b>26000</b>		5.7	2.8	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Manganese</b>	<b>380</b>		0.57	0.083	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Nickel</b>	<b>33</b>		0.57	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Potassium</b>	<b>3000</b>		29	10	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Silver</b>	<b>2.0</b>		0.29	0.074	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Sodium</b>	<b>180</b>		57	8.4	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Thallium</b>	<b>0.61</b>		0.57	0.28	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Vanadium</b>	<b>18</b>		0.29	0.067	mg/Kg	☼	12/13/19 18:01	12/16/19 16:47	1
<b>Zinc</b>	<b>47</b>		1.1	0.50	mg/Kg	☼	12/13/19 18:01	12/17/19 12:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.20		0.20	0.20	mg/L		12/19/19 15:44	12/20/19 09:53	1
<b>Manganese</b>	<b>1.9</b>		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 09:53	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-3**

**Lab Sample ID: 500-174692-11**

Date Collected: 12/06/19 13:55

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.7

**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		12/17/19 14:54	12/18/19 11:25	1
<b>Barium</b>	<b>0.17</b>	<b>J</b>	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 11:28	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:25	1
<b>Boron</b>	<b>1.1</b>	<b>B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:25	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/17/19 14:54	12/18/19 11:25	1
<b>Calcium</b>	<b>29</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:25	1
<b>Chromium</b>	<b>0.023</b>	<b>J</b>	0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:25	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:28	1
<b>Iron</b>	<b>10</b>		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:25	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 11:28	1
<b>Manganese</b>	<b>0.16</b>		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:28	1
<b>Nickel</b>	<b>0.020</b>	<b>J B</b>	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:28	1
<b>Potassium</b>	<b>9.0</b>		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 11:28	1
Selenium	<0.050	^	0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:25	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:25	1
<b>Zinc</b>	<b>0.13</b>	<b>J</b>	0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:25	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		12/17/19 14:54	12/18/19 17:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:50	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		12/18/19 15:25	12/19/19 11:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J B</b>	0.020	0.0067	mg/Kg	☼	12/13/19 14:40	12/16/19 09:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.23	mg/Kg	☼	12/19/19 10:30	12/19/19 15:43	1
<b>pH</b>	<b>8.2</b>		0.2	0.2	SU			12/13/19 15:26	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-4**

**Lab Sample ID: 500-174692-12**

Date Collected: 12/06/19 13:58

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.4

**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	☼	12/07/19 12:45	12/17/19 16:01	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
<b>Acetone</b>	<b>0.0086</b>	<b>J</b>	0.018	0.0078	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Bromomethane	<0.0045	*	0.0045	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	12/07/19 12:45	12/17/19 16:01	1
4-Bromofluorobenzene (Surr)	108		75 - 131	12/07/19 12:45	12/17/19 16:01	1
Dibromofluoromethane	86		75 - 126	12/07/19 12:45	12/17/19 16:01	1
Toluene-d8 (Surr)	102		75 - 124	12/07/19 12:45	12/17/19 16:01	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	☼	12/16/19 16:48	12/18/19 11:51	1
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-4**

**Lab Sample ID: 500-174692-12**

Date Collected: 12/06/19 13:58

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.095	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2,4-Dinitrophenol	<0.84		0.84	0.73	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
<b>2-Methylnaphthalene</b>	<b>0.040</b>	<b>J *</b>	0.084	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
2-Nitrophenol	<0.41		0.41	0.098	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
4,6-Dinitro-2-methylphenol	<0.84		0.84	0.33	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
4-Chloroaniline	<0.84		0.84	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
4-Nitrophenol	<0.84		0.84	0.39	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Acenaphthylene	<0.041		0.041	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Benzo[a]anthracene	<0.041		0.041	0.0056	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.076	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
<b>Chrysene</b>	<b>0.028</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Di-n-octyl phthalate	<0.21		0.21	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
<b>Fluoranthene</b>	<b>0.012</b>	<b>J</b>	0.041	0.0077	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Hexachlorobenzene	<0.084		0.084	0.0096	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Hexachlorocyclopentadiene	<0.84		0.84	0.24	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-4**

**Lab Sample ID: 500-174692-12**

Date Collected: 12/06/19 13:58

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.4

**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	☼	12/16/19 16:48	12/18/19 11:51	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Naphthalene	<0.041		0.041	0.0064	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
N-Nitrosodi-n-propylamine	<0.084		0.084	0.051	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Pentachlorophenol	<0.84		0.84	0.67	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
<b>Phenanthrene</b>	<b>0.11</b>		0.041	0.0058	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Phenol	<0.21		0.21	0.092	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
<b>Pyrene</b>	<b>0.029</b>	<b>J</b>	0.041	0.0082	mg/Kg	☼	12/16/19 16:48	12/18/19 11:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	50		31 - 143				12/16/19 16:48	12/18/19 11:51	1
2-Fluorobiphenyl	96		43 - 145				12/16/19 16:48	12/18/19 11:51	1
2-Fluorophenol	76		31 - 166				12/16/19 16:48	12/18/19 11:51	1
Nitrobenzene-d5	86		37 - 147				12/16/19 16:48	12/18/19 11:51	1
Phenol-d5	80		30 - 153				12/16/19 16:48	12/18/19 11:51	1
Terphenyl-d14	102		42 - 157				12/16/19 16:48	12/18/19 11:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.49</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Arsenic</b>	<b>7.3</b>		0.59	0.20	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Barium</b>	<b>45</b>		0.59	0.067	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Beryllium</b>	<b>0.84</b>	<b>B</b>	0.23	0.055	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Boron</b>	<b>22</b>		2.9	0.27	mg/Kg	☼	12/13/19 18:01	12/17/19 12:38	1
<b>Cadmium</b>	<b>0.087</b>	<b>J B</b>	0.12	0.021	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Calcium</b>	<b>55000</b>	<b>B</b>	120	20	mg/Kg	☼	12/13/19 18:01	12/17/19 12:43	10
<b>Chromium</b>	<b>18</b>	<b>B</b>	0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Cobalt</b>	<b>14</b>		0.29	0.077	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Copper</b>	<b>28</b>		0.59	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Iron</b>	<b>21000</b>		12	6.1	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Lead</b>	<b>14</b>		0.29	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Magnesium</b>	<b>23000</b>		5.9	2.9	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Manganese</b>	<b>360</b>		0.59	0.085	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Nickel</b>	<b>36</b>		0.59	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Potassium</b>	<b>3700</b>		29	10	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Selenium</b>	<b>0.41</b>	<b>J</b>	0.59	0.34	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Silver</b>	<b>2.5</b>		0.29	0.076	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Sodium</b>	<b>210</b>		59	8.7	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Thallium</b>	<b>0.82</b>		0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Vanadium</b>	<b>22</b>		0.29	0.069	mg/Kg	☼	12/13/19 18:01	12/16/19 16:51	1
<b>Zinc</b>	<b>58</b>		1.2	0.51	mg/Kg	☼	12/13/19 18:01	12/17/19 12:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.20		0.20	0.20	mg/L		12/19/19 15:44	12/20/19 10:40	1
<b>Manganese</b>	<b>1.8</b>		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 10:40	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/19/19 15:44	12/20/19 10:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-4**

**Lab Sample ID: 500-174692-12**

Date Collected: 12/06/19 13:58

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.4

**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		12/17/19 14:54	12/18/19 11:29	1
<b>Barium</b>	<b>0.23</b>	<b>J</b>	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 11:32	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:29	1
<b>Boron</b>	<b>1.3</b>	<b>B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:29	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/17/19 14:54	12/18/19 11:29	1
<b>Calcium</b>	<b>38</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:29	1
<b>Chromium</b>	<b>0.033</b>		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:29	1
<b>Cobalt</b>	<b>0.010</b>	<b>J</b>	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:32	1
<b>Iron</b>	<b>16</b>		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:29	1
<b>Lead</b>	<b>0.0094</b>		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 11:32	1
<b>Manganese</b>	<b>0.25</b>		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:32	1
<b>Nickel</b>	<b>0.026</b>	<b>B</b>	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:32	1
<b>Potassium</b>	<b>12</b>		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 11:32	1
Selenium	<0.050	^	0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:29	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:29	1
<b>Zinc</b>	<b>0.12</b>	<b>J</b>	0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:29	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		12/17/19 14:54	12/18/19 17:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:53	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		12/18/19 15:25	12/19/19 11:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J B</b>	0.020	0.0066	mg/Kg	☼	12/13/19 14:40	12/16/19 10:01	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	12/16/19 14:30	12/16/19 16:46	1
<b>pH</b>	<b>8.3</b>		0.2	0.2	SU			12/13/19 15:29	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-4 Dup**

**Lab Sample ID: 500-174692-13**

**Date Collected: 12/06/19 14:00**

**Matrix: Solid**

**Date Received: 12/06/19 16:30**

**Percent Solids: 83.0**

**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	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Bromomethane	<0.0043 *		0.0043	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	12/07/19 12:45	12/17/19 16:27	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/07/19 12:45	12/17/19 16:27	1
Dibromofluoromethane	87		75 - 126	12/07/19 12:45	12/17/19 16:27	1
Toluene-d8 (Surr)	100		75 - 124	12/07/19 12:45	12/17/19 16:27	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	☼	12/16/19 16:48	12/18/19 18:40	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-4 Dup**

**Lab Sample ID: 500-174692-13**

Date Collected: 12/06/19 14:00

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 83.0

**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	☼	12/16/19 16:48	12/18/19 18:40	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>2-Methylnaphthalene</b>	<b>0.037</b>	<b>J *</b>	0.079	0.0072	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Acenaphthene</b>	<b>0.094</b>		0.039	0.0071	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Acenaphthylene</b>	<b>0.054</b>		0.039	0.0052	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Anthracene</b>	<b>0.32</b>		0.039	0.0066	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Benzo[a]anthracene</b>	<b>1.2</b>		0.039	0.0053	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Benzo[a]pyrene</b>	<b>1.2</b>		0.039	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Benzo[b]fluoranthene</b>	<b>1.1</b>		0.039	0.0085	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Benzo[g,h,i]perylene</b>	<b>0.45</b>		0.039	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Benzo[k]fluoranthene</b>	<b>0.82</b>		0.039	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.10</b>	<b>J</b>	0.20	0.072	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Chrysene</b>	<b>1.3</b>		0.039	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Dibenz(a,h)anthracene</b>	<b>0.099</b>		0.039	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Fluoranthene</b>	<b>1.9</b>		0.039	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Fluorene</b>	<b>0.10</b>		0.039	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-4 Dup**

**Lab Sample ID: 500-174692-13**

Date Collected: 12/06/19 14:00

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 83.0

**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>0.46</b>		0.039	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Naphthalene</b>	<b>0.038</b>	<b>J</b>	0.039	0.0061	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
<b>Phenanthrene</b>	<b>1.7</b>		0.039	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/16/19 16:48	12/18/19 18:40	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	49		31 - 143				12/16/19 16:48	12/18/19 18:40	1
2-Fluorobiphenyl	92		43 - 145				12/16/19 16:48	12/18/19 18:40	1
2-Fluorophenol	71		31 - 166				12/16/19 16:48	12/18/19 18:40	1
Nitrobenzene-d5	79		37 - 147				12/16/19 16:48	12/18/19 18:40	1
Phenol-d5	69		30 - 153				12/16/19 16:48	12/18/19 18:40	1
Terphenyl-d14	87		42 - 157				12/16/19 16:48	12/18/19 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Pyrene</b>	<b>4.1</b>		0.20	0.039	mg/Kg	☼	12/16/19 16:48	12/20/19 02:24	5

**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</b>	1.1	0.22	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Arsenic</b>	<b>6.5</b>		0.57	0.19	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Barium</b>	<b>27</b>		0.57	0.064	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Beryllium</b>	<b>0.56</b>	<b>B</b>	0.23	0.053	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Boron</b>	<b>15</b>		2.8	0.26	mg/Kg	☼	12/13/19 18:01	12/17/19 12:47	1
<b>Cadmium</b>	<b>0.13</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Calcium</b>	<b>180000</b>	<b>B</b>	110	19	mg/Kg	☼	12/13/19 18:01	12/17/19 12:51	10
<b>Chromium</b>	<b>11</b>	<b>B</b>	0.57	0.28	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Cobalt</b>	<b>9.6</b>		0.28	0.074	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Copper</b>	<b>23</b>		0.57	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Iron</b>	<b>15000</b>		11	5.9	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Lead</b>	<b>11</b>		0.28	0.13	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Magnesium</b>	<b>29000</b>		5.7	2.8	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Manganese</b>	<b>410</b>		0.57	0.082	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Nickel</b>	<b>23</b>		0.57	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Potassium</b>	<b>2500</b>		28	10	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Selenium</b>	<b>0.66</b>		0.57	0.33	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Silver</b>	<b>1.4</b>		0.28	0.073	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Sodium</b>	<b>160</b>		57	8.4	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Thallium</b>	<b>0.44</b>	<b>J</b>	0.57	0.28	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Vanadium</b>	<b>14</b>		0.28	0.067	mg/Kg	☼	12/13/19 18:01	12/16/19 16:55	1
<b>Zinc</b>	<b>48</b>		1.1	0.50	mg/Kg	☼	12/13/19 18:01	12/17/19 12:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.20		0.20	0.20	mg/L		12/19/19 15:44	12/20/19 10:45	1

Eurolins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B23-4 Dup**

**Lab Sample ID: 500-174692-13**

Date Collected: 12/06/19 14:00

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 83.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.9		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 10:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/19/19 15:44	12/20/19 10:45	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		12/17/19 14:54	12/18/19 11:33	1
Barium	0.18	J	0.50	0.050	mg/L		12/17/19 14:54	12/19/19 11:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:33	1
Boron	1.3	B	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:33	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/17/19 14:54	12/18/19 11:33	1
Calcium	29		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:33	1
Chromium	0.026		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:33	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:36	1
Iron	11		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:33	1
Lead	0.0083		0.0075	0.0075	mg/L		12/17/19 14:54	12/19/19 11:36	1
Manganese	0.17		0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:36	1
Nickel	0.024	J B	0.025	0.010	mg/L		12/17/19 14:54	12/19/19 11:36	1
Potassium	9.6		2.5	0.50	mg/L		12/17/19 14:54	12/19/19 11:36	1
Selenium	<0.050	^	0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:33	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:33	1
Zinc	0.25	J	0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:33	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		12/17/19 14:54	12/18/19 17:57	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 17:57	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		12/18/19 15:25	12/19/19 11:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J B	0.020	0.0066	mg/Kg	☼	12/13/19 14:40	12/16/19 10:03	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.46		0.46	0.23	mg/Kg	☼	12/16/19 14:30	12/16/19 16:46	1
pH	7.8		0.2	0.2	SU			12/13/19 15:33	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-1**

**Lab Sample ID: 500-174692-14**

Date Collected: 12/06/19 14:10

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.0

**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	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
<b>Acetone</b>	<b>0.012</b>	<b>J</b>	0.017	0.0075	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Bromomethane	<0.0043	*	0.0043	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/07/19 12:45	12/17/19 16:53	1
4-Bromofluorobenzene (Surr)	103		75 - 131	12/07/19 12:45	12/17/19 16:53	1
Dibromofluoromethane	86		75 - 126	12/07/19 12:45	12/17/19 16:53	1
Toluene-d8 (Surr)	98		75 - 124	12/07/19 12:45	12/17/19 16:53	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	☼	12/16/19 16:48	12/18/19 14:34	1
1,2-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-1**

**Lab Sample ID: 500-174692-14**

Date Collected: 12/06/19 14:10

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.0

**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	☼	12/16/19 16:48	12/18/19 14:34	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2,6-Dinitrotoluene	<0.20		0.20	0.076	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2-Methylnaphthalene	<0.078	*	0.078	0.0071	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2-Methylphenol	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Benzo[g,h,i]perylene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
<b>Chrysene</b>	<b>0.020</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Dibenzofuran	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Di-n-octyl phthalate	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-1**

**Lab Sample ID: 500-174692-14**

Date Collected: 12/06/19 14:10

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.0

## 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	☼	12/16/19 16:48	12/18/19 14:34	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
<b>Phenanthrene</b>	<b>0.092</b>		0.039	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Phenol	<0.20		0.20	0.086	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
<b>Pyrene</b>	<b>0.014</b>	<b>J</b>	0.039	0.0077	mg/Kg	☼	12/16/19 16:48	12/18/19 14:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	38		31 - 143				12/16/19 16:48	12/18/19 14:34	1
2-Fluorobiphenyl	86		43 - 145				12/16/19 16:48	12/18/19 14:34	1
2-Fluorophenol	70		31 - 166				12/16/19 16:48	12/18/19 14:34	1
Nitrobenzene-d5	84		37 - 147				12/16/19 16:48	12/18/19 14:34	1
Phenol-d5	69		30 - 153				12/16/19 16:48	12/18/19 14:34	1
Terphenyl-d14	94		42 - 157				12/16/19 16:48	12/18/19 14:34	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.79</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Arsenic</b>	<b>7.6</b>		0.59	0.20	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Barium</b>	<b>80</b>		0.59	0.067	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Beryllium</b>	<b>0.77</b>	<b>B</b>	0.24	0.055	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Boron</b>	<b>16</b>		2.9	0.27	mg/Kg	☼	12/13/19 18:01	12/17/19 12:55	1
<b>Cadmium</b>	<b>0.41</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Calcium</b>	<b>25000</b>	<b>B</b>	12	2.0	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Chromium</b>	<b>17</b>	<b>B</b>	0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Cobalt</b>	<b>11</b>		0.29	0.077	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Copper</b>	<b>53</b>		0.59	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Iron</b>	<b>20000</b>		12	6.1	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Lead</b>	<b>180</b>		0.29	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Magnesium</b>	<b>14000</b>		5.9	2.9	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Manganese</b>	<b>300</b>		0.59	0.085	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Nickel</b>	<b>30</b>		0.59	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Potassium</b>	<b>2300</b>		29	10	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Selenium</b>	<b>0.90</b>		0.59	0.35	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Silver</b>	<b>2.3</b>		0.29	0.076	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Sodium</b>	<b>320</b>		59	8.7	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Thallium</b>	<b>0.86</b>		0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Vanadium</b>	<b>18</b>		0.29	0.069	mg/Kg	☼	12/13/19 18:01	12/16/19 16:59	1
<b>Zinc</b>	<b>160</b>		1.2	0.52	mg/Kg	☼	12/13/19 18:01	12/17/19 12:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:44	12/20/19 11:02	1
<b>Lead</b>	<b>0.075</b>		0.0075	0.0075	mg/L		12/19/19 15:44	12/20/19 11:02	1
<b>Manganese</b>	<b>1.1</b>		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 11:02	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-1**

**Lab Sample ID: 500-174692-14**

Date Collected: 12/06/19 14:10

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.030	J	0.050	0.010	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Barium	0.32	J	0.50	0.050	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Boron	1.2	B	0.10	0.050	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Cadmium	<0.0050		0.0050	0.0020	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Calcium	27		2.5	0.50	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Chromium	0.081		0.025	0.010	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Cobalt	0.023	J	0.025	0.010	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Iron	76		0.40	0.20	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Lead	0.21		0.0075	0.0075	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Manganese	0.31		0.025	0.010	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Nickel	0.084	B	0.025	0.010	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Potassium	25	B	2.5	0.50	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Selenium	<0.050	^	0.050	0.020	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Silver	<0.025		0.025	0.010	mg/L	-	12/17/19 14:54	12/18/19 11:46	1
Zinc	0.37	J	0.50	0.020	mg/L	-	12/17/19 14:54	12/18/19 11:46	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	-	12/17/19 14:54	12/18/19 18:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L	-	12/17/19 14:54	12/18/19 18:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00032		0.00020	0.00020	mg/L	-	12/18/19 15:25	12/19/19 11:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.37	B	0.019	0.0062	mg/Kg	☼	12/13/19 14:40	12/16/19 10:06	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.25	mg/Kg	☼	12/16/19 14:30	12/16/19 16:47	1
pH	7.6		0.2	0.2	SU			12/13/19 15:38	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-2**

**Lab Sample ID: 500-174692-15**

Date Collected: 12/06/19 14:15

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.5

**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	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
<b>Acetone</b>	<b>0.057</b>		0.016	0.0071	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Bromomethane	<0.0041	*	0.0041	0.0015	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Carbon tetrachloride	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Dibromochloromethane	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Tetrachloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00073	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Vinyl chloride	<0.0016		0.0016	0.00073	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	12/07/19 12:45	12/17/19 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	12/07/19 12:45	12/17/19 17:18	1
4-Bromofluorobenzene (Surr)	107		75 - 131	12/07/19 12:45	12/17/19 17:18	1
Dibromofluoromethane	87		75 - 126	12/07/19 12:45	12/17/19 17:18	1
Toluene-d8 (Surr)	100		75 - 124	12/07/19 12:45	12/17/19 17:18	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	☼	12/16/19 16:48	12/18/19 15:02	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-2**

**Lab Sample ID: 500-174692-15**

Date Collected: 12/06/19 14:15

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.5

**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	☼	12/16/19 16:48	12/18/19 15:02	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
<b>2-Methylnaphthalene</b>	<b>0.028</b>	<b>J *</b>	0.079	0.0072	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
2-Nitrophenol	<0.39		0.39	0.093	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.32	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
<b>Chrysene</b>	<b>0.033</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Hexachlorocyclopentadiene	<0.79		0.79	0.23	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1

Eurolins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-2**

**Lab Sample ID: 500-174692-15**

Date Collected: 12/06/19 14:15

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.5

**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	☼	12/16/19 16:48	12/18/19 15:02	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
<b>Phenanthrene</b>	<b>0.12</b>		0.039	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
<b>Pyrene</b>	<b>0.016</b>	<b>J</b>	0.039	0.0078	mg/Kg	☼	12/16/19 16:48	12/18/19 15:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	50		31 - 143				12/16/19 16:48	12/18/19 15:02	1
2-Fluorobiphenyl	101		43 - 145				12/16/19 16:48	12/18/19 15:02	1
2-Fluorophenol	81		31 - 166				12/16/19 16:48	12/18/19 15:02	1
Nitrobenzene-d5	98		37 - 147				12/16/19 16:48	12/18/19 15:02	1
Phenol-d5	78		30 - 153				12/16/19 16:48	12/18/19 15:02	1
Terphenyl-d14	100		42 - 157				12/16/19 16:48	12/18/19 15:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.53</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Arsenic</b>	<b>9.4</b>		0.59	0.20	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Barium</b>	<b>27</b>		0.59	0.067	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Beryllium</b>	<b>0.81</b>	<b>B</b>	0.23	0.055	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Boron</b>	<b>17</b>		2.9	0.27	mg/Kg	☼	12/13/19 18:01	12/17/19 13:07	1
<b>Cadmium</b>	<b>0.041</b>	<b>J B</b>	0.12	0.021	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Calcium</b>	<b>53000</b>	<b>B</b>	120	20	mg/Kg	☼	12/13/19 18:01	12/17/19 13:12	10
<b>Chromium</b>	<b>16</b>	<b>B</b>	0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Cobalt</b>	<b>15</b>		0.29	0.077	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Copper</b>	<b>34</b>		0.59	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Iron</b>	<b>21000</b>		12	6.1	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Lead</b>	<b>16</b>		0.29	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Magnesium</b>	<b>22000</b>		5.9	2.9	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Manganese</b>	<b>290</b>		0.59	0.085	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Nickel</b>	<b>38</b>		0.59	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Potassium</b>	<b>2900</b>		29	10	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Silver</b>	<b>1.9</b>		0.29	0.076	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Sodium</b>	<b>470</b>		59	8.7	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Thallium</b>	<b>0.91</b>		0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Vanadium</b>	<b>18</b>		0.29	0.069	mg/Kg	☼	12/13/19 18:01	12/16/19 17:03	1
<b>Zinc</b>	<b>49</b>		1.2	0.52	mg/Kg	☼	12/13/19 18:01	12/17/19 13:07	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		12/17/19 14:54	12/18/19 11:50	1
Barium	<0.50		0.50	0.050	mg/L		12/17/19 14:54	12/18/19 11:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:50	1
<b>Boron</b>	<b>0.076</b>	<b>J B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:50	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-2**

**Lab Sample ID: 500-174692-15**

Date Collected: 12/06/19 14:15

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.5

**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		12/17/19 14:54	12/18/19 11:50	1
<b>Calcium</b>	<b>57</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:50	1
Chromium	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:50	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:50	1
Iron	<0.40		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/17/19 14:54	12/18/19 11:50	1
<b>Manganese</b>	<b>0.021</b>	<b>J</b>	0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:50	1
Nickel	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:50	1
<b>Potassium</b>	<b>2.8</b>	<b>B</b>	2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:50	1
Selenium	<0.050	<sup>^</sup>	0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:50	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:50	1
<b>Zinc</b>	<b>0.021</b>	<b>J</b>	0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:50	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		12/17/19 14:54	12/18/19 18:05	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 18:05	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		12/18/19 15:25	12/19/19 11:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.028</b>	<b>B</b>	0.019	0.0065	mg/Kg	☼	12/13/19 14:40	12/16/19 10:12	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.49		0.49	0.24	mg/Kg	☼	12/16/19 14:30	12/16/19 16:48	1
<b>pH</b>	<b>7.4</b>		0.2	0.2	SU			12/13/19 15:40	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-3**

**Lab Sample ID: 500-174692-16**

Date Collected: 12/06/19 14:20

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.3

**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	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
2-Butanone (MEK)	<0.0044		0.0044	0.0019	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Acetone	<0.017		0.017	0.0076	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Bromomethane	<0.0044 *		0.0044	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Carbon tetrachloride	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00053	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	12/07/19 12:45	12/17/19 17:44	1
4-Bromofluorobenzene (Surr)	103		75 - 131	12/07/19 12:45	12/17/19 17:44	1
Dibromofluoromethane	86		75 - 126	12/07/19 12:45	12/17/19 17:44	1
Toluene-d8 (Surr)	98		75 - 124	12/07/19 12:45	12/17/19 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	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-3**

**Lab Sample ID: 500-174692-16**

Date Collected: 12/06/19 14:20

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.3

**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	0.093	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
<b>2-Methylnaphthalene</b>	<b>0.031</b>	<b>J *</b>	0.082	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
<b>Chrysene</b>	<b>0.025</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-3**

**Lab Sample ID: 500-174692-16**

Date Collected: 12/06/19 14:20

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.3

**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	☼	12/16/19 16:48	12/18/19 15:29	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
<b>Phenanthrene</b>	<b>0.082</b>		0.040	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
<b>Pyrene</b>	<b>0.021</b>	<b>J</b>	0.040	0.0081	mg/Kg	☼	12/16/19 16:48	12/18/19 15:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	35		31 - 143				12/16/19 16:48	12/18/19 15:29	1
2-Fluorobiphenyl	94		43 - 145				12/16/19 16:48	12/18/19 15:29	1
2-Fluorophenol	77		31 - 166				12/16/19 16:48	12/18/19 15:29	1
Nitrobenzene-d5	98		37 - 147				12/16/19 16:48	12/18/19 15:29	1
Phenol-d5	73		30 - 153				12/16/19 16:48	12/18/19 15:29	1
Terphenyl-d14	98		42 - 157				12/16/19 16:48	12/18/19 15:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.57</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Arsenic</b>	<b>6.9</b>		0.60	0.21	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Barium</b>	<b>39</b>		0.60	0.069	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Beryllium</b>	<b>0.84</b>	<b>B</b>	0.24	0.056	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Boron</b>	<b>23</b>		3.0	0.28	mg/Kg	☼	12/13/19 18:01	12/17/19 13:16	1
<b>Cadmium</b>	<b>0.057</b>	<b>J B</b>	0.12	0.022	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Calcium</b>	<b>51000</b>	<b>B</b>	120	20	mg/Kg	☼	12/13/19 18:01	12/17/19 13:20	10
<b>Chromium</b>	<b>17</b>	<b>B</b>	0.60	0.30	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Cobalt</b>	<b>14</b>		0.30	0.079	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Copper</b>	<b>30</b>		0.60	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Iron</b>	<b>21000</b>		12	6.3	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Lead</b>	<b>14</b>		0.30	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Magnesium</b>	<b>22000</b>		6.0	3.0	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Manganese</b>	<b>340</b>		0.60	0.087	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Nickel</b>	<b>36</b>		0.60	0.18	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Potassium</b>	<b>3800</b>		30	11	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Selenium</b>	<b>0.59</b>	<b>J</b>	0.60	0.35	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Silver</b>	<b>2.2</b>		0.30	0.078	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Sodium</b>	<b>210</b>		60	8.9	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Thallium</b>	<b>0.84</b>		0.60	0.30	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Vanadium</b>	<b>21</b>		0.30	0.071	mg/Kg	☼	12/13/19 18:01	12/16/19 17:07	1
<b>Zinc</b>	<b>48</b>		1.2	0.53	mg/Kg	☼	12/13/19 18:01	12/17/19 13:16	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		12/17/19 14:54	12/18/19 11:55	1
Barium	<0.50		0.50	0.050	mg/L		12/17/19 14:54	12/18/19 11:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:55	1
<b>Boron</b>	<b>0.066</b>	<b>J B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:55	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-3**

**Lab Sample ID: 500-174692-16**

Date Collected: 12/06/19 14:20

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.3

## 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		12/17/19 14:54	12/18/19 11:55	1
<b>Calcium</b>	<b>19</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:55	1
Chromium	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:55	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:55	1
<b>Iron</b>	<b>0.86</b>		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/17/19 14:54	12/18/19 11:55	1
<b>Manganese</b>	<b>0.031</b>		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:55	1
Nickel	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:55	1
<b>Potassium</b>	<b>2.6 B</b>		2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:55	1
Selenium	<0.050 ^		0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:55	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:55	1
Zinc	<0.50		0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:55	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		12/17/19 14:54	12/18/19 18:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 18:19	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		12/18/19 15:25	12/19/19 11:18	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.019 B</b>		0.018	0.0061	mg/Kg	☼	12/13/19 14:40	12/16/19 10:14	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.29	mg/Kg	☼	12/16/19 14:30	12/16/19 16:48	1
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			12/13/19 15:43	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-4**

**Lab Sample ID: 500-174692-17**

Date Collected: 12/06/19 14:25

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.4

**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	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Acetone	<0.017		0.017	0.0072	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Bromomethane	<0.0042 *		0.0042	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	12/07/19 12:45	12/17/19 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	12/07/19 12:45	12/17/19 18:10	1
4-Bromofluorobenzene (Surr)	104		75 - 131	12/07/19 12:45	12/17/19 18:10	1
Dibromofluoromethane	86		75 - 126	12/07/19 12:45	12/17/19 18:10	1
Toluene-d8 (Surr)	100		75 - 124	12/07/19 12:45	12/17/19 18:10	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	☼	12/16/19 16:48	12/18/19 15:56	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-4**

**Lab Sample ID: 500-174692-17**

Date Collected: 12/06/19 14:25

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
<b>2-Methylnaphthalene</b>	<b>0.046</b>	<b>J *</b>	0.081	0.0074	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
<b>Chrysene</b>	<b>0.026</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Hexachlorobenzene	<0.081		0.081	0.0094	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-4**

**Lab Sample ID: 500-174692-17**

Date Collected: 12/06/19 14:25

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.4

**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	☼	12/16/19 16:48	12/18/19 15:56	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
<b>Phenanthrene</b>	<b>0.12</b>		0.040	0.0056	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Pyrene	<0.040		0.040	0.0080	mg/Kg	☼	12/16/19 16:48	12/18/19 15:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	32		31 - 143				12/16/19 16:48	12/18/19 15:56	1
2-Fluorobiphenyl	89		43 - 145				12/16/19 16:48	12/18/19 15:56	1
2-Fluorophenol	72		31 - 166				12/16/19 16:48	12/18/19 15:56	1
Nitrobenzene-d5	93		37 - 147				12/16/19 16:48	12/18/19 15:56	1
Phenol-d5	77		30 - 153				12/16/19 16:48	12/18/19 15:56	1
Terphenyl-d14	93		42 - 157				12/16/19 16:48	12/18/19 15:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.55</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Arsenic</b>	<b>8.7</b>		0.59	0.20	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Barium</b>	<b>39</b>		0.59	0.067	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Beryllium</b>	<b>0.91</b>	<b>B</b>	0.23	0.055	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Boron</b>	<b>23</b>		2.9	0.27	mg/Kg	☼	12/13/19 18:01	12/17/19 13:24	1
<b>Cadmium</b>	<b>0.22</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Calcium</b>	<b>48000</b>	<b>B</b>	120	20	mg/Kg	☼	12/13/19 18:01	12/17/19 13:28	10
<b>Chromium</b>	<b>17</b>	<b>B</b>	0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Cobalt</b>	<b>15</b>		0.29	0.077	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Copper</b>	<b>33</b>		0.59	0.16	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Iron</b>	<b>22000</b>		12	6.1	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Lead</b>	<b>15</b>		0.29	0.14	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Magnesium</b>	<b>21000</b>		5.9	2.9	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Manganese</b>	<b>340</b>		0.59	0.085	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Nickel</b>	<b>38</b>		0.59	0.17	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Potassium</b>	<b>3800</b>		29	10	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Selenium</b>	<b>0.53</b>	<b>J</b>	0.59	0.35	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Silver</b>	<b>2.1</b>		0.29	0.076	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Sodium</b>	<b>180</b>		59	8.7	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Thallium</b>	<b>0.96</b>		0.59	0.29	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Vanadium</b>	<b>21</b>		0.29	0.069	mg/Kg	☼	12/13/19 18:01	12/16/19 17:23	1
<b>Zinc</b>	<b>78</b>		1.2	0.52	mg/Kg	☼	12/13/19 18:01	12/17/19 13:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.20		0.20	0.20	mg/L		12/19/19 15:44	12/20/19 11:10	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

**Client Sample ID: 2615V2-1-B22-4**

**Lab Sample ID: 500-174692-17**

Date Collected: 12/06/19 14:25

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.4

### 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		12/17/19 14:54	12/18/19 11:59	1
<b>Barium</b>	<b>0.082</b>	<b>J</b>	0.50	0.050	mg/L		12/17/19 14:54	12/18/19 11:59	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/17/19 14:54	12/18/19 11:59	1
<b>Boron</b>	<b>0.12</b>	<b>B</b>	0.10	0.050	mg/L		12/17/19 14:54	12/18/19 11:59	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/17/19 14:54	12/18/19 11:59	1
<b>Calcium</b>	<b>18</b>	<b>F1</b>	2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:59	1
<b>Chromium</b>	<b>0.020</b>	<b>J</b>	0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:59	1
Cobalt	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:59	1
<b>Iron</b>	<b>11</b>		0.40	0.20	mg/L		12/17/19 14:54	12/18/19 11:59	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/17/19 14:54	12/18/19 11:59	1
<b>Manganese</b>	<b>0.10</b>		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:59	1
<b>Nickel</b>	<b>0.018</b>	<b>J B</b>	0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:59	1
<b>Potassium</b>	<b>8.6</b>	<b>B F1</b>	2.5	0.50	mg/L		12/17/19 14:54	12/18/19 11:59	1
Selenium	<0.050	^	0.050	0.020	mg/L		12/17/19 14:54	12/18/19 11:59	1
Silver	<0.025		0.025	0.010	mg/L		12/17/19 14:54	12/18/19 11:59	1
<b>Zinc</b>	<b>0.036</b>	<b>J</b>	0.50	0.020	mg/L		12/17/19 14:54	12/18/19 11:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		12/17/19 14:54	12/18/19 18:23	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/17/19 14:54	12/18/19 18:23	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		12/18/19 15:25	12/19/19 11:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.014</b>	<b>J B</b>	0.019	0.0063	mg/Kg	☼	12/13/19 14:40	12/16/19 10:16	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.25	mg/Kg	☼	12/16/19 14:30	12/16/19 16:49	1
<b>pH</b>	<b>8.4</b>		0.2	0.2	SU			12/13/19 15:45	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174692-1

## 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.
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.

## 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 - AE7-028

Job ID: 500-174692-1

## 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      500-174692 COC 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>AC7-28A</u>  Project No.: <u>PTB/WO-184-006/28A</u>  TAT: <input 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>ROBERT SENOW</u>	COC No.: <u>3</u> of <u>4</u>  Lab Job No.: <u>500-174692</u>  Sample Temp: <u>29, 39, 18, 3.4</u>  Matrix Key: <ul style="list-style-type: none"> <li>W: Water</li> <li>S: Soil</li> <li>SL: Sludge</li> <li>S: Sediment</li> <li>L: Leachate</li> <li>DW: Drinking Water</li> <li>OL: Oil</li> <li>O: Other</li> </ul>
---	--	---	--

**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	2615V2-1-B20-1	12-6	1155	S	X	X					X	X	X	X	X			
2	2615V2-1-B20-2		1158															
3	2615V2-1-B20-3		1200															
4	2615V2-1-B20-4		1205															
5	2615V2-1-B25-1		1335															
6	2615V2-1-B25-2		1338															
7	2615V2-1-B25-3		1340															
8	2615V2-1-B25-4		1345															
	<del>2615V2-1-B</del>																	
	<del>2615V2-1-B</del>																	

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

					ANALYSES												Comments		

Relinquished by: 	Date/Time: <u>12-6-19 1520</u>	Received by: 	Date/Time: <u>12/6/19 1520</u>
Relinquished by: 	Date/Time: <u>12/6/19 1630</u>	Received by: 	Date/Time: <u>12/6/19 1630</u>
Relinquished by:	Date/Time:	Received by:	Date/Time:



# CHAIN OF CUSTODY RECORD

<b>Client Contact</b>	<b>Laboratory</b>	Project Name: <u>AE7-28A</u>	COC No.: <u>4</u> of <u>4</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:184-006/28A</u> TAT: <input type="checkbox"/> 15 BD <input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> Other	Lab Job No.: <u>500-174692</u>
<b>Special Instructions:</b> 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.		Sampler: <u>ROBERT SENOW</u>	Sample Temp: <u>29.3, 9.1, 8.3, 4</u>

Special Instructions:					ANALYSES												Matrix Key:
					VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization	
Lab ID	Sample ID	Sample Date	Sample Time	Matrix													
9	2.615V2-1-1323-1	12-6	1350	S	X	X						X	X	X	X	X	
10	2.615V2-1-1323-2		1353														
11	2.615V2-1-1323-3		1355														
12	2.615V2-1-1323-4		1358														
13	2.615V2-1-1323-4 Dup		1400														
14	2.615V2-1-1322-1		1410														
15	2.615V2-1-1322-2		1415														
16	2.615V2-1-1322-3		1420														
17	2.615V2-1-1322-4	↓	1425														
<del>2.615V2-1-1322-5</del>																	
18	TRIP BLANK #2	12-6		S	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

Relinquished by:	Date/Time: <u>12-6-19 1520</u>	Received by:	Date/Time: <u>12/6/19 1520</u>
Relinquished by:	Date/Time: <u>12/6/19 1630</u>	Received by:	Date/Time: <u>12/6/19 1630</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: 500-174691-1  
Client Project/Site: IDOT - AE7-028

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
12/21/2019 10:30:18 AM

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 - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-1**

**Lab Sample ID: 500-174691-1**

**Date Collected: 12/06/19 09:30**

**Matrix: Solid**

**Date Received: 12/06/19 16:30**

**Percent Solids: 84.3**

**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	☼	12/07/19 07:50	12/15/19 13:46	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Bromomethane	<0.0045 *		0.0045	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 13:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	12/07/19 07:50	12/15/19 13:46	1
4-Bromofluorobenzene (Surr)	115		75 - 131	12/07/19 07:50	12/15/19 13:46	1
Dibromofluoromethane	93		75 - 126	12/07/19 07:50	12/15/19 13:46	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/15/19 13:46	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	☼	12/16/19 18:59	12/20/19 03:23	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-1**

**Lab Sample ID: 500-174691-1**

Date Collected: 12/06/19 09:30

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.086	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2,4-Dichlorophenol	<0.37		0.37	0.089	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2,4-Dinitrophenol	<0.76		0.76	0.66	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>2-Methylnaphthalene</b>	<b>0.15</b>	*	0.076	0.0069	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
2-Nitrophenol	<0.37		0.37	0.089	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Acenaphthene</b>	<b>0.11</b>		0.037	0.0067	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Acenaphthylene</b>	<b>0.040</b>		0.037	0.0050	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Anthracene</b>	<b>0.18</b>		0.037	0.0063	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Benzo[a]anthracene</b>	<b>0.42</b>		0.037	0.0051	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.10</b>	J	0.19	0.069	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Carbazole</b>	<b>0.11</b>	J	0.19	0.094	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Chrysene</b>	<b>0.53</b>		0.037	0.010	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Dibenzofuran</b>	<b>0.099</b>	J	0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Fluoranthene</b>	<b>1.1</b>		0.037	0.0070	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Fluorene</b>	<b>0.081</b>		0.037	0.0053	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Hexachlorobenzene	<0.076		0.076	0.0087	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Hexachlorocyclopentadiene	<0.76		0.76	0.22	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Naphthalene	<0.037		0.037	0.0058	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Nitrobenzene	<0.037		0.037	0.0094	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-1**

**Lab Sample ID: 500-174691-1**

Date Collected: 12/06/19 09:30

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.76		0.76	0.60	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Phenanthrene</b>	<b>0.87</b>		0.037	0.0052	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Phenol	<0.19		0.19	0.083	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
<b>Pyrene</b>	<b>1.1</b>		0.037	0.0075	mg/Kg	☼	12/16/19 18:59	12/20/19 03:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	69		31 - 143				12/16/19 18:59	12/20/19 03:23	1
2-Fluorobiphenyl	70		43 - 145				12/16/19 18:59	12/20/19 03:23	1
2-Fluorophenol	82		31 - 166				12/16/19 18:59	12/20/19 03:23	1
Nitrobenzene-d5	77		37 - 147				12/16/19 18:59	12/20/19 03:23	1
Phenol-d5	62		30 - 153				12/16/19 18:59	12/20/19 03:23	1
Terphenyl-d14	112		42 - 157				12/16/19 18:59	12/20/19 03:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzo[a]pyrene</b>	<b>0.41</b>		0.075	0.015	mg/Kg	☼	12/16/19 18:59	12/20/19 15:03	2
<b>Benzo[b]fluoranthene</b>	<b>0.27</b>		0.075	0.016	mg/Kg	☼	12/16/19 18:59	12/20/19 15:03	2
<b>Benzo[g,h,i]perylene</b>	<b>0.26</b>		0.075	0.024	mg/Kg	☼	12/16/19 18:59	12/20/19 15:03	2
<b>Benzo[k]fluoranthene</b>	<b>0.57</b>		0.075	0.022	mg/Kg	☼	12/16/19 18:59	12/20/19 15:03	2
<b>Dibenz(a,h)anthracene</b>	<b>0.075</b>		0.075	0.015	mg/Kg	☼	12/16/19 18:59	12/20/19 15:03	2
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.27</b>		0.075	0.019	mg/Kg	☼	12/16/19 18:59	12/20/19 15:03	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.64</b>	<b>J F1 B</b>	1.1	0.22	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Arsenic</b>	<b>8.4</b>		0.57	0.19	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Barium</b>	<b>49</b>		0.57	0.065	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Beryllium</b>	<b>0.59</b>		0.23	0.053	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Boron</b>	<b>16</b>		2.8	0.26	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Cadmium</b>	<b>0.31</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Calcium</b>	<b>90000</b>	<b>B</b>	110	19	mg/Kg	☼	12/12/19 18:21	12/16/19 23:29	10
<b>Chromium</b>	<b>15</b>		0.57	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Cobalt</b>	<b>12</b>		0.28	0.074	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Copper</b>	<b>39</b>		0.57	0.16	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Iron</b>	<b>17000</b>	<b>B</b>	11	5.9	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Lead</b>	<b>69</b>	<b>F2</b>	0.28	0.13	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Magnesium</b>	<b>49000</b>		57	28	mg/Kg	☼	12/12/19 18:21	12/16/19 23:29	10
<b>Manganese</b>	<b>310</b>		0.57	0.082	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Nickel</b>	<b>29</b>	<b>F1</b>	0.57	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Potassium</b>	<b>2100</b>	<b>F1</b>	28	10	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Selenium</b>	<b>0.57</b>		0.57	0.33	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Silver</b>	<b>1.8</b>		0.28	0.073	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Sodium</b>	<b>680</b>		57	8.4	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Thallium</b>	<b>0.59</b>		0.57	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Vanadium</b>	<b>17</b>		0.28	0.067	mg/Kg	☼	12/12/19 18:21	12/13/19 17:11	1
<b>Zinc</b>	<b>110</b>	<b>F1</b>	1.1	0.50	mg/Kg	☼	12/12/19 18:21	12/16/19 21:14	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		12/14/19 17:48	12/17/19 00:09	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-1**

**Lab Sample ID: 500-174691-1**

Date Collected: 12/06/19 09:30

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:09	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:09	1
<b>Boron</b>	<b>0.089</b>	<b>J</b>	0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:09	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:48	12/17/19 00:09	1
<b>Calcium</b>	<b>22</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:09	1
Chromium	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:09	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:09	1
<b>Iron</b>	<b>2.5</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:09	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:09	1
<b>Manganese</b>	<b>0.017</b>	<b>J</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:09	1
Nickel	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:09	1
<b>Potassium</b>	<b>4.7</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:09	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:09	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:09	1
<b>Zinc</b>	<b>0.057</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:09	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		12/14/19 17:48	12/16/19 17:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 17:51	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		12/16/19 09:15	12/17/19 10:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.049</b>		0.019	0.0062	mg/Kg	☼	12/13/19 14:40	12/16/19 08:02	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55	F2	0.55	0.27	mg/Kg	☼	12/20/19 09:55	12/20/19 14:58	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/13/19 14:01	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-2**

**Lab Sample ID: 500-174691-2**

Date Collected: 12/06/19 09:33

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00081	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
1,1-Dichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
1,1-Dichloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
1,2-Dichloropropane	<0.0019		0.0019	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00067	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
<b>Acetone</b>	<b>0.0085</b>	<b>J</b>	0.019	0.0083	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Bromodichloromethane	<0.0019		0.0019	0.00039	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Bromomethane	<0.0047	*	0.0047	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Carbon disulfide	<0.0047		0.0047	0.00099	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Carbon tetrachloride	<0.0019		0.0019	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Chlorobenzene	<0.0019		0.0019	0.00070	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Chloroform	<0.0019		0.0019	0.00066	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Dibromochloromethane	<0.0019		0.0019	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Ethylbenzene	<0.0019		0.0019	0.00091	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Methylene Chloride	<0.0047		0.0047	0.0019	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Tetrachloroethene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Toluene	<0.0019		0.0019	0.00048	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00084	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00067	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Trichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Vinyl chloride	<0.0019		0.0019	0.00084	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1
Xylenes, Total	<0.0038		0.0038	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 14:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	12/07/19 07:50	12/15/19 14:11	1
4-Bromofluorobenzene (Surr)	113		75 - 131	12/07/19 07:50	12/15/19 14:11	1
Dibromofluoromethane	99		75 - 126	12/07/19 07:50	12/15/19 14:11	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/15/19 14:11	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	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-2**

**Lab Sample ID: 500-174691-2**

Date Collected: 12/06/19 09:33

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.1

**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	☼	12/16/19 18:59	12/18/19 15:38	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
<b>2-Methylnaphthalene</b>	<b>0.069</b>	<b>J *</b>	0.080	0.0073	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Benzo[b]fluoranthene	<0.039		0.039	0.0086	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
<b>Chrysene</b>	<b>0.045</b>		0.039	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-2**

**Lab Sample ID: 500-174691-2**

Date Collected: 12/06/19 09:33

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.1

**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	☼	12/16/19 18:59	12/18/19 15:38	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
<b>Phenanthrene</b>	<b>0.22</b>		0.039	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
<b>Pyrene</b>	<b>0.043</b>		0.039	0.0079	mg/Kg	☼	12/16/19 18:59	12/18/19 15:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	76		31 - 143				12/16/19 18:59	12/18/19 15:38	1
2-Fluorobiphenyl	97		43 - 145				12/16/19 18:59	12/18/19 15:38	1
2-Fluorophenol	76		31 - 166				12/16/19 18:59	12/18/19 15:38	1
Nitrobenzene-d5	76		37 - 147				12/16/19 18:59	12/18/19 15:38	1
Phenol-d5	86		30 - 153				12/16/19 18:59	12/18/19 15:38	1
Terphenyl-d14	102		42 - 157				12/16/19 18:59	12/18/19 15:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.68</b>	<b>J B</b>	1.2	0.24	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Arsenic</b>	<b>8.3</b>		0.60	0.21	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Barium</b>	<b>38</b>		0.60	0.069	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Beryllium</b>	<b>0.64</b>		0.24	0.056	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Boron</b>	<b>18</b>		3.0	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Cadmium</b>	<b>0.25</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Calcium</b>	<b>48000</b>	<b>B</b>	120	20	mg/Kg	☼	12/12/19 18:21	12/16/19 23:50	10
<b>Chromium</b>	<b>17</b>		0.60	0.30	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Cobalt</b>	<b>16</b>		0.30	0.079	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Copper</b>	<b>35</b>		0.60	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	12	6.3	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Lead</b>	<b>16</b>		0.30	0.14	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Magnesium</b>	<b>20000</b>		6.0	3.0	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Manganese</b>	<b>320</b>		0.60	0.088	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Nickel</b>	<b>41</b>		0.60	0.18	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Potassium</b>	<b>3100</b>		30	11	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Selenium</b>	<b>0.50</b>	<b>J</b>	0.60	0.36	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Silver</b>	<b>2.2</b>		0.30	0.078	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Sodium</b>	<b>630</b>		60	8.9	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Thallium</b>	<b>1.1</b>		0.60	0.30	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Vanadium</b>	<b>20</b>		0.30	0.071	mg/Kg	☼	12/12/19 18:21	12/13/19 17:31	1
<b>Zinc</b>	<b>73</b>		1.2	0.53	mg/Kg	☼	12/12/19 18:21	12/16/19 21:48	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		12/14/19 17:48	12/17/19 00:14	1
Barium	<0.50		0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:14	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:14	1
<b>Boron</b>	<b>0.088</b>	<b>J</b>	0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:14	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-2**

**Lab Sample ID: 500-174691-2**

Date Collected: 12/06/19 09:33

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.1

### 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		12/14/19 17:48	12/17/19 00:14	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:14	1
Chromium	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:14	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:14	1
<b>Iron</b>	<b>1.5</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:14	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:14	1
<b>Manganese</b>	<b>0.027</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:14	1
Nickel	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:14	1
<b>Potassium</b>	<b>3.9</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:14	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:14	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:14	1
Zinc	<0.50		0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:14	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		12/14/19 17:48	12/16/19 17:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 17:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00020</b>		0.00020	0.00020	mg/L		12/16/19 09:15	12/17/19 10:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J</b>	0.021	0.0068	mg/Kg	☼	12/13/19 14:40	12/16/19 08:04	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.52		0.52	0.26	mg/Kg	☼	12/20/19 09:55	12/20/19 14:59	1
<b>pH</b>	<b>7.9</b>		0.2	0.2	SU			12/13/19 14:03	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-2 Dup**

**Lab Sample ID: 500-174691-3**

**Date Collected: 12/06/19 09:35**

**Matrix: Solid**

**Date Received: 12/06/19 16:30**

**Percent Solids: 80.9**

**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	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Bromomethane	<0.0044 *		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Methylene Chloride	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	12/07/19 07:50	12/15/19 14:37	1
4-Bromofluorobenzene (Surr)	109		75 - 131	12/07/19 07:50	12/15/19 14:37	1
Dibromofluoromethane	97		75 - 126	12/07/19 07:50	12/15/19 14:37	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/15/19 14:37	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	☼	12/16/19 18:59	12/18/19 16:09	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-2 Dup**

**Lab Sample ID: 500-174691-3**

Date Collected: 12/06/19 09:35

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
<b>2-Methylnaphthalene</b>	<b>0.065</b>	<b>J *</b>	0.079	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
<b>Chrysene</b>	<b>0.037</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-2 Dup**

**Lab Sample ID: 500-174691-3**

Date Collected: 12/06/19 09:35

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.9

**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	<0.039		0.039	0.010	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
<b>Phenanthrene</b>	<b>0.18</b>		0.039	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
<b>Pyrene</b>	<b>0.049</b>		0.039	0.0078	mg/Kg	☼	12/16/19 18:59	12/18/19 16:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72		31 - 143				12/16/19 18:59	12/18/19 16:09	1
2-Fluorobiphenyl	100		43 - 145				12/16/19 18:59	12/18/19 16:09	1
2-Fluorophenol	84		31 - 166				12/16/19 18:59	12/18/19 16:09	1
Nitrobenzene-d5	82		37 - 147				12/16/19 18:59	12/18/19 16:09	1
Phenol-d5	87		30 - 153				12/16/19 18:59	12/18/19 16:09	1
Terphenyl-d14	99		42 - 157				12/16/19 18:59	12/18/19 16:09	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</b>	1.2	0.23	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Arsenic</b>	<b>8.6</b>		0.59	0.20	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Barium</b>	<b>40</b>		0.59	0.068	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Beryllium</b>	<b>0.68</b>		0.24	0.056	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Boron</b>	<b>17</b>		3.0	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Calcium</b>	<b>48000</b>	<b>B</b>	120	20	mg/Kg	☼	12/12/19 18:21	12/16/19 23:54	10
<b>Chromium</b>	<b>17</b>		0.59	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Cobalt</b>	<b>16</b>		0.30	0.078	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Copper</b>	<b>35</b>		0.59	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	12	6.2	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Lead</b>	<b>16</b>		0.30	0.14	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Magnesium</b>	<b>20000</b>		5.9	2.9	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Manganese</b>	<b>330</b>		0.59	0.086	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Nickel</b>	<b>40</b>		0.59	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Potassium</b>	<b>2800</b>		30	11	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Selenium</b>	<b>0.37</b>	<b>J</b>	0.59	0.35	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Silver</b>	<b>2.1</b>		0.30	0.077	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Sodium</b>	<b>450</b>		59	8.8	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Thallium</b>	<b>0.83</b>		0.59	0.30	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Vanadium</b>	<b>19</b>		0.30	0.070	mg/Kg	☼	12/12/19 18:21	12/13/19 17:35	1
<b>Zinc</b>	<b>54</b>		1.2	0.52	mg/Kg	☼	12/12/19 18:21	12/16/19 21:52	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		12/14/19 17:48	12/17/19 00:18	1
Barium	<0.50		0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:18	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:18	1
<b>Boron</b>	<b>0.095</b>	<b>J</b>	0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:18	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-2 Dup**

**Lab Sample ID: 500-174691-3**

Date Collected: 12/06/19 09:35

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.9

**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		12/14/19 17:48	12/17/19 00:18	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:18	1
Chromium	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:18	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:18	1
<b>Iron</b>	<b>1.5</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:18	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:18	1
<b>Manganese</b>	<b>0.029</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:18	1
Nickel	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:18	1
<b>Potassium</b>	<b>3.4</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:18	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:18	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:18	1
<b>Zinc</b>	<b>0.025</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		12/14/19 17:48	12/16/19 17:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 17:56	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		12/16/19 09:15	12/17/19 10:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.018</b>	<b>J</b>	0.020	0.0065	mg/Kg	☼	12/13/19 14:40	12/16/19 08:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.46		0.46	0.23	mg/Kg	☼	12/20/19 09:55	12/20/19 15:00	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/13/19 14:05	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-3**

**Lab Sample ID: 500-174691-4**

Date Collected: 12/06/19 09:38

Matrix: Solid

Date Received: 12/06/19 16:30

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	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00071	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
2-Butanone (MEK)	<0.0042		0.0042	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Acetone	<0.017		0.017	0.0073	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Benzene	<0.0017		0.0017	0.00042	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Bromomethane	<0.0042 *		0.0042	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Chlorobenzene	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Dibromochloromethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 15:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 134	12/07/19 07:50	12/15/19 15:02	1
4-Bromofluorobenzene (Surr)	113		75 - 131	12/07/19 07:50	12/15/19 15:02	1
Dibromofluoromethane	93		75 - 126	12/07/19 07:50	12/15/19 15:02	1
Toluene-d8 (Surr)	96		75 - 124	12/07/19 07:50	12/15/19 15:02	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	☼	12/16/19 18:59	12/18/19 18:52	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-3**

**Lab Sample ID: 500-174691-4**

Date Collected: 12/06/19 09:38

Matrix: Solid

Date Received: 12/06/19 16:30

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	☼	12/16/19 18:59	12/18/19 18:52	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
<b>2-Methylnaphthalene</b>	<b>0.064</b>	<b>J *</b>	0.079	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
<b>Benzo[g,h,i]perylene</b>	<b>0.024</b>	<b>J</b>	0.039	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
<b>Chrysene</b>	<b>0.039</b>		0.039	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-3**

**Lab Sample ID: 500-174691-4**

Date Collected: 12/06/19 09:38

Matrix: Solid

Date Received: 12/06/19 16:30

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	☼	12/16/19 18:59	12/18/19 18:52	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
<b>Phenanthrene</b>	<b>0.14</b>		0.039	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
<b>Pyrene</b>	<b>0.027</b>	<b>J</b>	0.039	0.0078	mg/Kg	☼	12/16/19 18:59	12/18/19 18:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	58		31 - 143				12/16/19 18:59	12/18/19 18:52	1
2-Fluorobiphenyl	86		43 - 145				12/16/19 18:59	12/18/19 18:52	1
2-Fluorophenol	84		31 - 166				12/16/19 18:59	12/18/19 18:52	1
Nitrobenzene-d5	74		37 - 147				12/16/19 18:59	12/18/19 18:52	1
Phenol-d5	88		30 - 153				12/16/19 18:59	12/18/19 18:52	1
Terphenyl-d14	91		42 - 157				12/16/19 18:59	12/18/19 18:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.63</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Arsenic</b>	<b>7.7</b>		0.58	0.20	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Barium</b>	<b>42</b>		0.58	0.066	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Beryllium</b>	<b>0.66</b>		0.23	0.054	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Boron</b>	<b>17</b>		2.9	0.27	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Calcium</b>	<b>55000</b>	<b>B</b>	120	20	mg/Kg	☼	12/12/19 18:21	12/16/19 23:58	10
<b>Chromium</b>	<b>17</b>		0.58	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Cobalt</b>	<b>15</b>		0.29	0.076	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Copper</b>	<b>29</b>		0.58	0.16	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	12	6.0	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Lead</b>	<b>14</b>		0.29	0.13	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Magnesium</b>	<b>22000</b>		5.8	2.9	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Manganese</b>	<b>340</b>		0.58	0.084	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Nickel</b>	<b>38</b>		0.58	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Potassium</b>	<b>2900</b>		29	10	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Selenium</b>	<b>0.41</b>	<b>J</b>	0.58	0.34	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Silver</b>	<b>2.5</b>		0.29	0.075	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Sodium</b>	<b>210</b>		58	8.6	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Thallium</b>	<b>0.72</b>		0.58	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Vanadium</b>	<b>20</b>		0.29	0.069	mg/Kg	☼	12/12/19 18:21	12/13/19 17:39	1
<b>Zinc</b>	<b>55</b>		1.2	0.51	mg/Kg	☼	12/12/19 18:21	12/16/19 21:56	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		12/14/19 17:48	12/17/19 00:30	1
Barium	<0.50		0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:30	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:30	1
<b>Boron</b>	<b>0.086</b>	<b>J</b>	0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:30	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-3**

**Lab Sample ID: 500-174691-4**

Date Collected: 12/06/19 09:38

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.6

**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		12/14/19 17:48	12/17/19 00:30	1
<b>Calcium</b>	<b>14</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:30	1
Chromium	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:30	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:30	1
<b>Iron</b>	<b>1.3</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:30	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:30	1
<b>Manganese</b>	<b>0.026</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:30	1
Nickel	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:30	1
<b>Potassium</b>	<b>3.1</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:30	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:30	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:30	1
<b>Zinc</b>	<b>0.26</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:30	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		12/14/19 17:48	12/16/19 17:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 17:58	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		12/16/19 09:15	12/17/19 10:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.016</b>	<b>J</b>	0.019	0.0062	mg/Kg	☼	12/13/19 14:40	12/16/19 08:13	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.28	mg/Kg	☼	12/20/19 09:55	12/20/19 15:00	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/13/19 14:08	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-4**

**Lab Sample ID: 500-174691-5**

Date Collected: 12/06/19 09:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.4

## 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	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Bromomethane	<0.0043 *		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 134	12/07/19 07:50	12/15/19 15:28	1
4-Bromofluorobenzene (Surr)	114		75 - 131	12/07/19 07:50	12/15/19 15:28	1
Dibromofluoromethane	96		75 - 126	12/07/19 07:50	12/15/19 15:28	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/15/19 15:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-4**

**Lab Sample ID: 500-174691-5**

Date Collected: 12/06/19 09:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.091	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
<b>2-Methylnaphthalene</b>	<b>0.059</b>	<b>J *</b>	0.080	0.0073	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
<b>Benzo[g,h,i]perylene</b>	<b>0.026</b>	<b>J</b>	0.040	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
<b>Chrysene</b>	<b>0.036</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-4**

**Lab Sample ID: 500-174691-5**

Date Collected: 12/06/19 09:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.4

**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	☼	12/16/19 18:59	12/18/19 19:19	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
<b>Phenanthrene</b>	<b>0.15</b>		0.040	0.0056	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
<b>Pyrene</b>	<b>0.031</b>	<b>J</b>	0.040	0.0079	mg/Kg	☼	12/16/19 18:59	12/18/19 19:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	61		31 - 143				12/16/19 18:59	12/18/19 19:19	1
2-Fluorobiphenyl	87		43 - 145				12/16/19 18:59	12/18/19 19:19	1
2-Fluorophenol	75		31 - 166				12/16/19 18:59	12/18/19 19:19	1
Nitrobenzene-d5	72		37 - 147				12/16/19 18:59	12/18/19 19:19	1
Phenol-d5	82		30 - 153				12/16/19 18:59	12/18/19 19:19	1
Terphenyl-d14	93		42 - 157				12/16/19 18:59	12/18/19 19:19	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</b>	1.1	0.22	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Arsenic</b>	<b>7.9</b>		0.57	0.20	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Barium</b>	<b>44</b>		0.57	0.065	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Beryllium</b>	<b>0.64</b>		0.23	0.054	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Boron</b>	<b>18</b>		2.9	0.27	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Cadmium</b>	<b>0.099</b>	<b>J B</b>	0.11	0.021	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	110	19	mg/Kg	☼	12/12/19 18:21	12/17/19 00:02	10
<b>Chromium</b>	<b>17</b>		0.57	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Cobalt</b>	<b>15</b>		0.29	0.075	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Copper</b>	<b>30</b>		0.57	0.16	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	11	6.0	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Lead</b>	<b>15</b>		0.29	0.13	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Magnesium</b>	<b>23000</b>		5.7	2.8	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Manganese</b>	<b>340</b>		0.57	0.083	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Nickel</b>	<b>38</b>		0.57	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Potassium</b>	<b>2900</b>		29	10	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
Selenium	<0.57		0.57	0.34	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Silver</b>	<b>2.2</b>		0.29	0.074	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Sodium</b>	<b>190</b>		57	8.5	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Thallium</b>	<b>0.77</b>		0.57	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Vanadium</b>	<b>20</b>		0.29	0.068	mg/Kg	☼	12/12/19 18:21	12/13/19 17:43	1
<b>Zinc</b>	<b>51</b>		1.1	0.50	mg/Kg	☼	12/12/19 18:21	12/16/19 22:01	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		12/14/19 17:48	12/17/19 00:34	1
<b>Barium</b>	<b>0.058</b>	<b>J</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:34	1
<b>Boron</b>	<b>0.096</b>	<b>J</b>	0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B31-4**

**Lab Sample ID: 500-174691-5**

Date Collected: 12/06/19 09:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.4

**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		12/14/19 17:48	12/17/19 00:34	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:34	1
Chromium	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:34	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:34	1
<b>Iron</b>	<b>3.7</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:34	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:34	1
<b>Manganese</b>	<b>0.046</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:34	1
Nickel	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:34	1
<b>Potassium</b>	<b>4.7</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:34	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:34	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:34	1
<b>Zinc</b>	<b>0.036</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:34	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		12/14/19 17:48	12/16/19 18:01	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:01	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		12/16/19 09:15	12/17/19 10:14	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	0.0065	mg/Kg	☼	12/13/19 14:40	12/16/19 08:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	12/20/19 09:55	12/20/19 15:02	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/13/19 14:10	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-1**

**Lab Sample ID: 500-174691-6**

**Date Collected: 12/06/19 10:10**

**Matrix: Solid**

**Date Received: 12/06/19 16:30**

**Percent Solids: 85.3**

**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	☼	12/07/19 07:50	12/15/19 15:53	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Acetone	<0.016		0.016	0.0071	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Bromomethane	<0.0040 *		0.0040	0.0015	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 15:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 134	12/07/19 07:50	12/15/19 15:53	1
4-Bromofluorobenzene (Surr)	121		75 - 131	12/07/19 07:50	12/15/19 15:53	1
Dibromofluoromethane	94		75 - 126	12/07/19 07:50	12/15/19 15:53	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/15/19 15:53	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	☼	12/16/19 18:59	12/20/19 03:53	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-1**

**Lab Sample ID: 500-174691-6**

Date Collected: 12/06/19 10:10

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.37		0.37	0.085	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2,4-Dinitrophenol	<0.75		0.75	0.66	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2-Chlorophenol	<0.19		0.19	0.064	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>2-Methylnaphthalene</b>	<b>0.087</b>	*	0.075	0.0068	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Acenaphthene</b>	<b>0.062</b>		0.037	0.0067	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Anthracene</b>	<b>0.052</b>		0.037	0.0062	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Benzo[a]anthracene</b>	<b>0.085</b>		0.037	0.0050	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Benzo[a]pyrene</b>	<b>0.12</b>		0.037	0.0072	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Benzo[b]fluoranthene</b>	<b>0.14</b>		0.037	0.0080	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Benzo[g,h,i]perylene</b>	<b>0.043</b>		0.037	0.012	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Benzo[k]fluoranthene</b>	<b>0.066</b>		0.037	0.011	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Chrysene</b>	<b>0.14</b>		0.037	0.010	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Dibenzofuran</b>	<b>0.064</b>	J	0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Fluoranthene</b>	<b>0.21</b>		0.037	0.0069	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Fluorene</b>	<b>0.051</b>		0.037	0.0052	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-1**

**Lab Sample ID: 500-174691-6**

Date Collected: 12/06/19 10:10

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.3

**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>0.038</b>		0.037	0.0097	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.046	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Phenanthrene</b>	<b>0.35</b>		0.037	0.0052	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Phenol	<0.19		0.19	0.083	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
<b>Pyrene</b>	<b>0.30</b>		0.037	0.0074	mg/Kg	☼	12/16/19 18:59	12/20/19 03:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72		31 - 143				12/16/19 18:59	12/20/19 03:53	1
2-Fluorobiphenyl	96		43 - 145				12/16/19 18:59	12/20/19 03:53	1
2-Fluorophenol	102		31 - 166				12/16/19 18:59	12/20/19 03:53	1
Nitrobenzene-d5	82		37 - 147				12/16/19 18:59	12/20/19 03:53	1
Phenol-d5	98		30 - 153				12/16/19 18:59	12/20/19 03:53	1
Terphenyl-d14	141		42 - 157				12/16/19 18:59	12/20/19 03:53	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</b>	1.1	0.22	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Arsenic</b>	<b>8.7</b>		0.57	0.20	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Barium</b>	<b>35</b>		0.57	0.065	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Beryllium</b>	<b>0.60</b>		0.23	0.053	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Boron</b>	<b>15</b>		2.9	0.27	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Calcium</b>	<b>87000</b>	<b>B</b>	110	19	mg/Kg	☼	12/12/19 18:21	12/17/19 00:06	10
<b>Chromium</b>	<b>14</b>		0.57	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Cobalt</b>	<b>13</b>		0.29	0.075	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Copper</b>	<b>32</b>		0.57	0.16	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Iron</b>	<b>18000</b>	<b>B</b>	11	5.9	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Lead</b>	<b>29</b>		0.29	0.13	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Magnesium</b>	<b>48000</b>		57	28	mg/Kg	☼	12/12/19 18:21	12/17/19 00:06	10
<b>Manganese</b>	<b>380</b>		0.57	0.083	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Nickel</b>	<b>32</b>		0.57	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Potassium</b>	<b>2400</b>		29	10	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Selenium</b>	<b>0.45</b>	<b>J</b>	0.57	0.34	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Silver</b>	<b>1.8</b>		0.29	0.074	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Sodium</b>	<b>720</b>		57	8.4	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Thallium</b>	<b>0.62</b>		0.57	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Vanadium</b>	<b>18</b>		0.29	0.067	mg/Kg	☼	12/12/19 18:21	12/13/19 17:55	1
<b>Zinc</b>	<b>56</b>		1.1	0.50	mg/Kg	☼	12/12/19 18:21	12/16/19 22:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:42	12/20/19 11:49	1
<b>Lead</b>	<b>0.013</b>		0.0075	0.0075	mg/L		12/19/19 15:42	12/20/19 11:49	1
<b>Manganese</b>	<b>2.2</b>		0.025	0.010	mg/L		12/19/19 15:42	12/20/19 11:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-1**

**Lab Sample ID: 500-174691-6**

Date Collected: 12/06/19 10:10

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.3

### 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		12/14/19 17:48	12/17/19 00:38	1
<b>Barium</b>	<b>0.23</b>	<b>J</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Boron</b>	<b>0.19</b>		0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:38	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Calcium</b>	<b>34</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Chromium</b>	<b>0.068</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Cobalt</b>	<b>0.030</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Iron</b>	<b>43</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Lead</b>	<b>0.097</b>		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Manganese</b>	<b>0.50</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Nickel</b>	<b>0.078</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Potassium</b>	<b>23</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:38	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:38	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:38	1
<b>Zinc</b>	<b>0.27</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:38	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		12/14/19 17:48	12/16/19 18:03	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:03	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		12/16/19 09:15	12/17/19 10:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.035</b>		0.018	0.0061	mg/Kg	☼	12/13/19 14:40	12/16/19 08:21	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.25	mg/Kg	☼	12/20/19 09:55	12/20/19 15:03	1
<b>pH</b>	<b>8.2</b>		0.2	0.2	SU			12/13/19 14:12	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-2**

**Lab Sample ID: 500-174691-7**

Date Collected: 12/06/19 10:13

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.0

**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	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
<b>Acetone</b>	<b>0.0075</b>	<b>J</b>	0.017	0.0075	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Bromomethane	<0.0043	*	0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 16:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 134	12/07/19 07:50	12/15/19 16:18	1
4-Bromofluorobenzene (Surr)	116		75 - 131	12/07/19 07:50	12/15/19 16:18	1
Dibromofluoromethane	93		75 - 126	12/07/19 07:50	12/15/19 16:18	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 07:50	12/15/19 16:18	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	☼	12/16/19 18:59	12/18/19 12:54	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-2**

**Lab Sample ID: 500-174691-7**

Date Collected: 12/06/19 10:13

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.0

**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	0.092	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
<b>2-Methylnaphthalene</b>	<b>0.064</b>	<b>J *</b>	0.081	0.0074	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
<b>Benzo[g,h,i]perylene</b>	<b>0.041</b>		0.040	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
<b>Chrysene</b>	<b>0.041</b>		0.040	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-2**

**Lab Sample ID: 500-174691-7**

Date Collected: 12/06/19 10:13

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.0

**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	☼	12/16/19 18:59	12/18/19 12:54	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
<b>Phenanthrene</b>	<b>0.19</b>		0.040	0.0056	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	1
<b>Pyrene</b>	<b>0.034</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	12/16/19 18:59	12/18/19 12:54	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	88		31 - 143				12/16/19 18:59	12/18/19 12:54	1
2-Fluorobiphenyl	103		43 - 145				12/16/19 18:59	12/18/19 12:54	1
2-Fluorophenol	85		31 - 166				12/16/19 18:59	12/18/19 12:54	1
Nitrobenzene-d5	79		37 - 147				12/16/19 18:59	12/18/19 12:54	1
Phenol-d5	92		30 - 153				12/16/19 18:59	12/18/19 12:54	1
Terphenyl-d14	104		42 - 157				12/16/19 18:59	12/18/19 12:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.85</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Arsenic</b>	<b>7.8</b>		0.59	0.20	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Barium</b>	<b>44</b>		0.59	0.067	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Beryllium</b>	<b>0.69</b>		0.23	0.055	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Boron</b>	<b>17</b>		2.9	0.27	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Calcium</b>	<b>63000</b>	<b>B</b>	120	20	mg/Kg	☼	12/12/19 18:21	12/17/19 00:19	10
<b>Chromium</b>	<b>17</b>		0.59	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Cobalt</b>	<b>14</b>		0.29	0.077	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Copper</b>	<b>28</b>		0.59	0.16	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	12	6.1	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Lead</b>	<b>14</b>		0.29	0.14	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Magnesium</b>	<b>25000</b>		5.9	2.9	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Manganese</b>	<b>370</b>		0.59	0.085	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Nickel</b>	<b>36</b>		0.59	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Potassium</b>	<b>2900</b>		29	10	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
Selenium	<0.59		0.59	0.35	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Silver</b>	<b>2.4</b>		0.29	0.076	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Sodium</b>	<b>420</b>		59	8.7	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Thallium</b>	<b>0.69</b>		0.59	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Vanadium</b>	<b>20</b>		0.29	0.069	mg/Kg	☼	12/12/19 18:21	12/13/19 17:59	1
<b>Zinc</b>	<b>64</b>		1.2	0.52	mg/Kg	☼	12/12/19 18:21	12/16/19 22:09	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		12/14/19 17:48	12/17/19 00:42	1
<b>Barium</b>	<b>0.057</b>	<b>J</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:42	1
<b>Boron</b>	<b>0.096</b>	<b>J</b>	0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:42	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-2**

**Lab Sample ID: 500-174691-7**

Date Collected: 12/06/19 10:13

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 81.0

**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		12/14/19 17:48	12/17/19 00:42	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:42	1
Chromium	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:42	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:42	1
<b>Iron</b>	<b>1.4</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:42	1
<b>Manganese</b>	<b>0.033</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:42	1
Nickel	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:42	1
<b>Potassium</b>	<b>3.0</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:42	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:42	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:42	1
<b>Zinc</b>	<b>0.086</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:42	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		12/14/19 17:48	12/16/19 18:06	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:06	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		12/16/19 09:15	12/17/19 10:17	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	0.0065	mg/Kg	☼	12/13/19 14:40	12/16/19 08:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.49		0.49	0.24	mg/Kg	☼	12/20/19 09:55	12/20/19 15:03	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/13/19 14:17	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-3**

**Lab Sample ID: 500-174691-8**

Date Collected: 12/06/19 10:15

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.3

**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	☼	12/07/19 07:50	12/15/19 16:43	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Bromomethane	<0.0044 *		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 134	12/07/19 07:50	12/15/19 16:43	1
4-Bromofluorobenzene (Surr)	110		75 - 131	12/07/19 07:50	12/15/19 16:43	1
Dibromofluoromethane	94		75 - 126	12/07/19 07:50	12/15/19 16:43	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/15/19 16:43	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	☼	12/16/19 18:59	12/18/19 19:46	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-3**

**Lab Sample ID: 500-174691-8**

Date Collected: 12/06/19 10:15

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.090	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
<b>2-Methylnaphthalene</b>	<b>0.058</b>	<b>J *</b>	0.080	0.0073	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Acenaphthene	<0.039		0.039	0.0071	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Benzo[b]fluoranthene	<0.039		0.039	0.0085	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
<b>Benzo[g,h,i]perylene</b>	<b>0.026</b>	<b>J</b>	0.039	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.072	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
<b>Chrysene</b>	<b>0.035</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-3**

**Lab Sample ID: 500-174691-8**

Date Collected: 12/06/19 10:15

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.3

**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	☼	12/16/19 18:59	12/18/19 19:46	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
<b>Phenanthrene</b>	<b>0.15</b>		0.039	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1
Pyrene	<0.039		0.039	0.0079	mg/Kg	☼	12/16/19 18:59	12/18/19 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	64		31 - 143	12/16/19 18:59	12/18/19 19:46	1
2-Fluorobiphenyl	95		43 - 145	12/16/19 18:59	12/18/19 19:46	1
2-Fluorophenol	75		31 - 166	12/16/19 18:59	12/18/19 19:46	1
Nitrobenzene-d5	77		37 - 147	12/16/19 18:59	12/18/19 19:46	1
Phenol-d5	81		30 - 153	12/16/19 18:59	12/18/19 19:46	1
Terphenyl-d14	98		42 - 157	12/16/19 18:59	12/18/19 19:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.96</b>	<b>J B</b>	1.2	0.24	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Arsenic</b>	<b>8.0</b>		0.61	0.21	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Barium</b>	<b>44</b>		0.61	0.070	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Beryllium</b>	<b>0.72</b>		0.24	0.057	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Boron</b>	<b>20</b>		3.1	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Cadmium</b>	<b>0.17</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Calcium</b>	<b>60000</b>	<b>B</b>	120	21	mg/Kg	☼	12/12/19 18:21	12/17/19 00:23	10
<b>Chromium</b>	<b>18</b>		0.61	0.30	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Cobalt</b>	<b>14</b>		0.31	0.080	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Copper</b>	<b>31</b>		0.61	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	12	6.4	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Lead</b>	<b>15</b>		0.31	0.14	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Magnesium</b>	<b>24000</b>		6.1	3.0	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Manganese</b>	<b>340</b>		0.61	0.089	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Nickel</b>	<b>37</b>		0.61	0.18	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Potassium</b>	<b>3300</b>		31	11	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Selenium</b>	<b>0.46</b>	<b>J</b>	0.61	0.36	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Silver</b>	<b>2.5</b>		0.31	0.079	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Sodium</b>	<b>210</b>		61	9.1	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Thallium</b>	<b>0.35</b>	<b>J</b>	0.61	0.31	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Vanadium</b>	<b>21</b>		0.31	0.072	mg/Kg	☼	12/12/19 18:21	12/13/19 18:03	1
<b>Zinc</b>	<b>130</b>		1.2	0.54	mg/Kg	☼	12/12/19 18:21	12/16/19 22:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.20		0.20	0.20	mg/L		12/19/19 15:42	12/20/19 11:53	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-3**

**Lab Sample ID: 500-174691-8**

Date Collected: 12/06/19 10:15

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.3

## 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		12/14/19 17:48	12/17/19 00:46	1
<b>Barium</b>	<b>0.10</b>	<b>J</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:46	1
<b>Boron</b>	<b>0.13</b>		0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:46	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:48	12/17/19 00:46	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:46	1
<b>Chromium</b>	<b>0.020</b>	<b>J</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:46	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:46	1
<b>Iron</b>	<b>12</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:46	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:46	1
<b>Manganese</b>	<b>0.13</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:46	1
<b>Nickel</b>	<b>0.020</b>	<b>J</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:46	1
<b>Potassium</b>	<b>8.8</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:46	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:46	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:46	1
<b>Zinc</b>	<b>0.29</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:46	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		12/14/19 17:48	12/16/19 18:13	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:13	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		12/16/19 09:15	12/17/19 10:19	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.021</b>		0.020	0.0065	mg/Kg	☼	12/13/19 14:40	12/16/19 08:26	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.25	mg/Kg	☼	12/20/19 09:55	12/20/19 15:03	1
<b>pH</b>	<b>7.9</b>		0.2	0.2	SU			12/13/19 14:19	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-4**

**Lab Sample ID: 500-174691-9**

Date Collected: 12/06/19 10:18

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.9

**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	☼	12/07/19 07:50	12/15/19 17:08	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
1,1-Dichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
<b>2-Butanone (MEK)</b>	<b>0.0048</b>		0.0044	0.0019	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
<b>Acetone</b>	<b>0.010</b>	<b>J</b>	0.018	0.0076	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Bromomethane	<0.0044	*	0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Dibromochloromethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	12/07/19 07:50	12/15/19 17:08	1
4-Bromofluorobenzene (Surr)	113		75 - 131	12/07/19 07:50	12/15/19 17:08	1
Dibromofluoromethane	94		75 - 126	12/07/19 07:50	12/15/19 17:08	1
Toluene-d8 (Surr)	96		75 - 124	12/07/19 07:50	12/15/19 17:08	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	☼	12/16/19 18:59	12/18/19 20:13	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-4**

**Lab Sample ID: 500-174691-9**

Date Collected: 12/06/19 10:18

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
<b>2-Methylnaphthalene</b>	<b>0.042</b>	<b>J *</b>	0.079	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
<b>Benzo[g,h,i]perylene</b>	<b>0.019</b>	<b>J</b>	0.039	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
<b>Chrysene</b>	<b>0.032</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-4**

**Lab Sample ID: 500-174691-9**

Date Collected: 12/06/19 10:18

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.9

## 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	<0.039		0.039	0.010	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
<b>Phenanthrene</b>	<b>0.18</b>		0.039	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Pyrene	<0.039		0.039	0.0078	mg/Kg	☼	12/16/19 18:59	12/18/19 20:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	61		31 - 143				12/16/19 18:59	12/18/19 20:13	1
2-Fluorobiphenyl	84		43 - 145				12/16/19 18:59	12/18/19 20:13	1
2-Fluorophenol	69		31 - 166				12/16/19 18:59	12/18/19 20:13	1
Nitrobenzene-d5	64		37 - 147				12/16/19 18:59	12/18/19 20:13	1
Phenol-d5	73		30 - 153				12/16/19 18:59	12/18/19 20:13	1
Terphenyl-d14	92		42 - 157				12/16/19 18:59	12/18/19 20:13	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.55</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Arsenic</b>	<b>8.0</b>		0.58	0.20	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Barium</b>	<b>41</b>		0.58	0.066	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Beryllium</b>	<b>0.63</b>		0.23	0.054	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Boron</b>	<b>20</b>		2.9	0.27	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	120	20	mg/Kg	☼	12/12/19 18:21	12/17/19 00:27	10
<b>Chromium</b>	<b>17</b>		0.58	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Cobalt</b>	<b>15</b>		0.29	0.076	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Copper</b>	<b>31</b>		0.58	0.16	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	12	6.1	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Lead</b>	<b>15</b>		0.29	0.13	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Magnesium</b>	<b>23000</b>		5.8	2.9	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Manganese</b>	<b>360</b>		0.58	0.084	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Nickel</b>	<b>38</b>		0.58	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Potassium</b>	<b>3100</b>		29	10	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Selenium</b>	<b>0.67</b>		0.58	0.34	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Silver</b>	<b>2.3</b>		0.29	0.075	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Sodium</b>	<b>210</b>		58	8.6	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Thallium</b>	<b>0.94</b>		0.58	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Vanadium</b>	<b>21</b>		0.29	0.069	mg/Kg	☼	12/12/19 18:21	12/13/19 18:07	1
<b>Zinc</b>	<b>55</b>		1.2	0.51	mg/Kg	☼	12/12/19 18:21	12/16/19 22:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.20		0.20	0.20	mg/L		12/19/19 15:42	12/20/19 11:57	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B30-4**

**Lab Sample ID: 500-174691-9**

Date Collected: 12/06/19 10:18

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.9

## 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		12/14/19 17:48	12/17/19 00:50	1
<b>Barium</b>	<b>0.077</b>	<b>J</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 00:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 00:50	1
<b>Boron</b>	<b>0.12</b>		0.10	0.050	mg/L		12/14/19 17:48	12/17/19 00:50	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:48	12/17/19 00:50	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:50	1
<b>Chromium</b>	<b>0.014</b>	<b>J</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:50	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:50	1
<b>Iron</b>	<b>7.8</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 00:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 00:50	1
<b>Manganese</b>	<b>0.092</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:50	1
<b>Nickel</b>	<b>0.014</b>	<b>J</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:50	1
<b>Potassium</b>	<b>6.6</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 00:50	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 00:50	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 00:50	1
<b>Zinc</b>	<b>0.029</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 00:50	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		12/14/19 17:48	12/16/19 18:16	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:16	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		12/16/19 09:15	12/17/19 10:20	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	☼	12/13/19 14:40	12/16/19 08:28	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.30	mg/Kg	☼	12/20/19 09:55	12/20/19 15:04	1
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			12/13/19 14:22	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-1**

**Lab Sample ID: 500-174691-16**

**Date Collected: 12/06/19 10:40**

**Matrix: Solid**

**Date Received: 12/06/19 16:30**

**Percent Solids: 84.6**

**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	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
1,2-Dichloroethane	<0.0040		0.0040	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
2-Hexanone	<0.0040		0.0040	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
<b>Acetone</b>	<b>0.014</b>	<b>J</b>	0.016	0.0070	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Bromomethane	<0.0040	*	0.0040	0.0015	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Carbon disulfide	<0.0040		0.0040	0.00084	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1
Xylenes, Total	<0.0032		0.0032	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	12/07/19 07:50	12/15/19 19:40	1
4-Bromofluorobenzene (Surr)	122		75 - 131	12/07/19 07:50	12/15/19 19:40	1
Dibromofluoromethane	90		75 - 126	12/07/19 07:50	12/15/19 19:40	1
Toluene-d8 (Surr)	98		75 - 124	12/07/19 07:50	12/15/19 19:40	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	☼	12/16/19 18:59	12/18/19 21:34	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-1**

**Lab Sample ID: 500-174691-16**

Date Collected: 12/06/19 10:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.6

**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	0.088	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2,4-Dichlorophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>2-Methylnaphthalene</b>	<b>0.073</b>	<b>J *</b>	0.078	0.0071	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Acenaphthylene</b>	<b>0.028</b>	<b>J</b>	0.039	0.0051	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Anthracene</b>	<b>0.064</b>		0.039	0.0065	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Benzo[a]anthracene</b>	<b>0.27</b>		0.039	0.0052	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Benzo[a]pyrene</b>	<b>0.28</b>		0.039	0.0075	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Benzo[b]fluoranthene</b>	<b>0.41</b>		0.039	0.0084	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Benzo[g,h,i]perylene</b>	<b>0.16</b>		0.039	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Benzo[k]fluoranthene</b>	<b>0.18</b>		0.039	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Chrysene</b>	<b>0.34</b>		0.039	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Dibenz(a,h)anthracene</b>	<b>0.044</b>		0.039	0.0075	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Fluoranthene</b>	<b>0.60</b>		0.039	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Fluorene	<0.039		0.039	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-1**

**Lab Sample ID: 500-174691-16**

Date Collected: 12/06/19 10:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.6

**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>		0.039	0.010	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Isophorone	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Phenanthrene</b>	<b>0.49</b>		0.039	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
<b>Pyrene</b>	<b>0.52</b>		0.039	0.0077	mg/Kg	☼	12/16/19 18:59	12/18/19 21:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	114		31 - 143				12/16/19 18:59	12/18/19 21:34	1
2-Fluorobiphenyl	137		43 - 145				12/16/19 18:59	12/18/19 21:34	1
2-Fluorophenol	113		31 - 166				12/16/19 18:59	12/18/19 21:34	1
Nitrobenzene-d5	113		37 - 147				12/16/19 18:59	12/18/19 21:34	1
Phenol-d5	125		30 - 153				12/16/19 18:59	12/18/19 21:34	1
Terphenyl-d14	150		42 - 157				12/16/19 18:59	12/18/19 21:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.77</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Arsenic</b>	<b>8.6</b>		0.58	0.20	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Barium</b>	<b>66</b>		0.58	0.066	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Beryllium</b>	<b>0.72</b>		0.23	0.054	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Boron</b>	<b>16</b>		2.9	0.27	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Cadmium</b>	<b>0.35</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Calcium</b>	<b>35000</b>	<b>B</b>	12	2.0	mg/Kg	☼	12/12/19 18:21	12/16/19 22:55	1
<b>Chromium</b>	<b>19</b>		0.58	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Cobalt</b>	<b>13</b>		0.29	0.076	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Copper</b>	<b>41</b>		0.58	0.16	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	12	6.1	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Lead</b>	<b>78</b>		0.29	0.13	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Magnesium</b>	<b>19000</b>		5.8	2.9	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Manganese</b>	<b>330</b>		0.58	0.084	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Nickel</b>	<b>35</b>		0.58	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Potassium</b>	<b>2600</b>		29	10	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Selenium</b>	<b>0.53</b>	<b>J</b>	0.58	0.34	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Silver</b>	<b>2.3</b>		0.29	0.075	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Sodium</b>	<b>1200</b>		58	8.6	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Thallium</b>	<b>0.76</b>		0.58	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Vanadium</b>	<b>23</b>		0.29	0.069	mg/Kg	☼	12/12/19 18:21	12/13/19 18:43	1
<b>Zinc</b>	<b>89</b>		1.2	0.51	mg/Kg	☼	12/12/19 18:21	12/16/19 22:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:42	12/20/19 12:26	1
<b>Lead</b>	<b>0.034</b>		0.0075	0.0075	mg/L		12/19/19 15:42	12/20/19 12:26	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-1**

**Lab Sample ID: 500-174691-16**

Date Collected: 12/06/19 10:40

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 84.6

**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		12/14/19 17:48	12/17/19 01:27	1
<b>Barium</b>	<b>0.11</b>	<b>J</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 01:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Boron</b>	<b>0.11</b>		0.10	0.050	mg/L		12/14/19 17:48	12/17/19 01:27	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Calcium</b>	<b>19</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Chromium</b>	<b>0.028</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:27	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Iron</b>	<b>19</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Lead</b>	<b>0.037</b>		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Manganese</b>	<b>0.14</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Nickel</b>	<b>0.032</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Potassium</b>	<b>12</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:27	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 01:27	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:27	1
<b>Zinc</b>	<b>0.22</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 01:27	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		12/14/19 17:48	12/16/19 18:33	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:33	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		12/16/19 09:15	12/17/19 10:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.061</b>		0.018	0.0060	mg/Kg	☼	12/13/19 14:40	12/16/19 09:01	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.28	mg/Kg	☼	12/20/19 09:55	12/20/19 15:09	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/13/19 14:38	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-2**

**Lab Sample ID: 500-174691-17**

Date Collected: 12/06/19 10:43

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.0

## 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	☼	12/07/19 07:50	12/15/19 20:05	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Acetone	<0.016		0.016	0.0068	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Bromomethane	<0.0039 *		0.0039	0.0015	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Carbon disulfide	<0.0039		0.0039	0.00082	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Chloromethane	<0.0039		0.0039	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 20:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	12/07/19 07:50	12/15/19 20:05	1
4-Bromofluorobenzene (Surr)	116		75 - 131	12/07/19 07:50	12/15/19 20:05	1
Dibromofluoromethane	92		75 - 126	12/07/19 07:50	12/15/19 20:05	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 07:50	12/15/19 20:05	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	☼	12/16/19 18:59	12/18/19 22:01	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-2**

**Lab Sample ID: 500-174691-17**

Date Collected: 12/06/19 10:43

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.0

**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	☼	12/16/19 18:59	12/18/19 22:01	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2,4-Dinitrophenol	<0.75		0.75	0.65	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
<b>2-Methylnaphthalene</b>	<b>0.049</b>	<b>J *</b>	0.075	0.0068	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2-Methylphenol	<0.19		0.19	0.060	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
2-Nitrophenol	<0.37		0.37	0.088	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
3-Nitroaniline	<0.37		0.37	0.12	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
4-Nitroaniline	<0.37		0.37	0.16	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Acenaphthene	<0.037		0.037	0.0067	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Anthracene	<0.037		0.037	0.0062	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Benzo[a]pyrene	<0.037		0.037	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Benzo[b]fluoranthene	<0.037		0.037	0.0080	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Benzo[g,h,i]perylene	<0.037		0.037	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.056	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Butyl benzyl phthalate	<0.19		0.19	0.071	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Carbazole	<0.19		0.19	0.093	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
<b>Chrysene</b>	<b>0.060</b>		0.037	0.010	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0072	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Di-n-butyl phthalate	<0.19		0.19	0.057	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Di-n-octyl phthalate	<0.19		0.19	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Fluoranthene	<0.037		0.037	0.0069	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-2**

**Lab Sample ID: 500-174691-17**

Date Collected: 12/06/19 10:43

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.0

**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	0.0096	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Nitrobenzene	<0.037		0.037	0.0093	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Pentachlorophenol	<0.75		0.75	0.60	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
<b>Phenanthrene</b>	<b>0.28</b>		0.037	0.0052	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
Phenol	<0.19		0.19	0.083	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	1
<b>Pyrene</b>	<b>0.035</b>	<b>J</b>	0.037	0.0074	mg/Kg	☼	12/16/19 18:59	12/18/19 22:01	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	67		31 - 143				12/16/19 18:59	12/18/19 22:01	1
2-Fluorobiphenyl	101		43 - 145				12/16/19 18:59	12/18/19 22:01	1
2-Fluorophenol	82		31 - 166				12/16/19 18:59	12/18/19 22:01	1
Nitrobenzene-d5	80		37 - 147				12/16/19 18:59	12/18/19 22:01	1
Phenol-d5	94		30 - 153				12/16/19 18:59	12/18/19 22:01	1
Terphenyl-d14	109		42 - 157				12/16/19 18:59	12/18/19 22:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.63</b>	<b>J B</b>	1.1	0.21	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Arsenic</b>	<b>7.8</b>		0.54	0.18	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Barium</b>	<b>33</b>		0.54	0.062	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Beryllium</b>	<b>0.71</b>		0.22	0.050	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Boron</b>	<b>16</b>		2.7	0.25	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Cadmium</b>	<b>0.16</b>	<b>B</b>	0.11	0.019	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Calcium</b>	<b>54000</b>	<b>B</b>	110	18	mg/Kg	☼	12/12/19 18:21	12/17/19 00:52	10
<b>Chromium</b>	<b>15</b>		0.54	0.27	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Cobalt</b>	<b>15</b>		0.27	0.071	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Copper</b>	<b>66</b>		0.54	0.15	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	11	5.6	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Lead</b>	<b>16</b>		0.27	0.12	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Magnesium</b>	<b>24000</b>		5.4	2.7	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Manganese</b>	<b>380</b>		0.54	0.078	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Nickel</b>	<b>38</b>		0.54	0.16	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Potassium</b>	<b>2900</b>		27	9.6	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Selenium</b>	<b>0.80</b>		0.54	0.32	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Silver</b>	<b>2.0</b>		0.27	0.070	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Sodium</b>	<b>220</b>		54	8.0	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Thallium</b>	<b>0.79</b>		0.54	0.27	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Vanadium</b>	<b>18</b>		0.27	0.064	mg/Kg	☼	12/12/19 18:21	12/13/19 18:47	1
<b>Zinc</b>	<b>53</b>		1.1	0.47	mg/Kg	☼	12/12/19 18:21	12/16/19 23:00	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		12/14/19 17:48	12/17/19 01:31	1
Barium	<0.50		0.50	0.050	mg/L		12/14/19 17:48	12/17/19 01:31	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 01:31	1
<b>Boron</b>	<b>0.064</b>	<b>J</b>	0.10	0.050	mg/L		12/14/19 17:48	12/17/19 01:31	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-2**

**Lab Sample ID: 500-174691-17**

Date Collected: 12/06/19 10:43

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.0

## 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		12/14/19 17:48	12/17/19 01:31	1
<b>Calcium</b>	<b>19</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:31	1
Chromium	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:31	1
Cobalt	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:31	1
<b>Iron</b>	<b>0.25</b>	<b>J</b>	0.40	0.20	mg/L		12/14/19 17:48	12/17/19 01:31	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 01:31	1
<b>Manganese</b>	<b>0.024</b>	<b>J</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:31	1
Nickel	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:31	1
<b>Potassium</b>	<b>2.1</b>	<b>J</b>	2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:31	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 01:31	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:31	1
<b>Zinc</b>	<b>0.053</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 01:31	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		12/14/19 17:48	12/16/19 18:35	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:35	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		12/16/19 09:15	12/17/19 10:41	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.025</b>		0.017	0.0057	mg/Kg	☼	12/13/19 14:40	12/16/19 09:03	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.41		0.41	0.21	mg/Kg	☼	12/20/19 09:55	12/20/19 15:09	1
<b>pH</b>	<b>7.4</b>		0.2	0.2	SU			12/13/19 14:42	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-3**

**Lab Sample ID: 500-174691-18**

Date Collected: 12/06/19 10:45

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.5

## 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	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Bromomethane	<0.0043 *		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 07:50	12/15/19 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	12/07/19 07:50	12/15/19 20:30	1
4-Bromofluorobenzene (Surr)	111		75 - 131	12/07/19 07:50	12/15/19 20:30	1
Dibromofluoromethane	94		75 - 126	12/07/19 07:50	12/15/19 20:30	1
Toluene-d8 (Surr)	96		75 - 124	12/07/19 07:50	12/15/19 20:30	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	0.044	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-3**

**Lab Sample ID: 500-174691-18**

Date Collected: 12/06/19 10:45

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.5

**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	☼	12/16/19 18:59	12/18/19 14:44	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
<b>2-Methylnaphthalene</b>	<b>0.058</b>	<b>J *</b>	0.083	0.0075	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
<b>Benzo[g,h,i]perylene</b>	<b>0.030</b>	<b>J</b>	0.041	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
<b>Chrysene</b>	<b>0.038</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Hexachlorocyclopentadiene	<0.83		0.83	0.24	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-3**

**Lab Sample ID: 500-174691-18**

Date Collected: 12/06/19 10:45

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.5

**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	☼	12/16/19 18:59	12/18/19 14:44	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
<b>Phenanthrene</b>	<b>0.14</b>		0.041	0.0057	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
<b>Pyrene</b>	<b>0.028</b>	<b>J</b>	0.041	0.0081	mg/Kg	☼	12/16/19 18:59	12/18/19 14:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	59		31 - 143				12/16/19 18:59	12/18/19 14:44	1
2-Fluorobiphenyl	89		43 - 145				12/16/19 18:59	12/18/19 14:44	1
2-Fluorophenol	76		31 - 166				12/16/19 18:59	12/18/19 14:44	1
Nitrobenzene-d5	72		37 - 147				12/16/19 18:59	12/18/19 14:44	1
Phenol-d5	80		30 - 153				12/16/19 18:59	12/18/19 14:44	1
Terphenyl-d14	95		42 - 157				12/16/19 18:59	12/18/19 14:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.66</b>	<b>J B</b>	1.2	0.24	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Arsenic</b>	<b>7.4</b>		0.62	0.21	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Barium</b>	<b>45</b>		0.62	0.070	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Beryllium</b>	<b>0.74</b>		0.25	0.057	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Boron</b>	<b>19</b>		3.1	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Calcium</b>	<b>61000</b>	<b>B</b>	120	21	mg/Kg	☼	12/12/19 18:21	12/17/19 00:56	10
<b>Chromium</b>	<b>18</b>		0.62	0.30	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Cobalt</b>	<b>14</b>		0.31	0.081	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Copper</b>	<b>28</b>		0.62	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	12	6.4	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Lead</b>	<b>14</b>		0.31	0.14	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Magnesium</b>	<b>25000</b>		6.2	3.1	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Manganese</b>	<b>360</b>		0.62	0.089	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Nickel</b>	<b>36</b>		0.62	0.18	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Potassium</b>	<b>3300</b>		31	11	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Selenium</b>	<b>0.41</b>	<b>J</b>	0.62	0.36	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Silver</b>	<b>2.3</b>		0.31	0.079	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Sodium</b>	<b>210</b>		62	9.1	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Thallium</b>	<b>0.86</b>		0.62	0.31	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Vanadium</b>	<b>21</b>		0.31	0.073	mg/Kg	☼	12/12/19 18:21	12/13/19 18:51	1
<b>Zinc</b>	<b>52</b>		1.2	0.54	mg/Kg	☼	12/12/19 18:21	12/16/19 23:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:42	12/20/19 14:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/19/19 15:42	12/20/19 14:45	1
<b>Manganese</b>	<b>1.7</b>		0.025	0.010	mg/L		12/19/19 15:42	12/20/19 14:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-3**

**Lab Sample ID: 500-174691-18**

Date Collected: 12/06/19 10:45

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 80.5

**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		12/14/19 17:48	12/17/19 01:35	1
<b>Barium</b>	<b>0.19</b>	<b>J</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 01:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Boron</b>	<b>0.17</b>		0.10	0.050	mg/L		12/14/19 17:48	12/17/19 01:35	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Calcium</b>	<b>27</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Chromium</b>	<b>0.045</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Cobalt</b>	<b>0.015</b>	<b>J</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Iron</b>	<b>28</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Lead</b>	<b>0.013</b>		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Manganese</b>	<b>0.29</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Nickel</b>	<b>0.044</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Potassium</b>	<b>16</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:35	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 01:35	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:35	1
<b>Zinc</b>	<b>0.16</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 01:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		12/14/19 17:48	12/16/19 18:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:43	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		12/16/19 09:15	12/17/19 10:43	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	☼	12/13/19 14:40	12/16/19 09:05	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.58		0.58	0.29	mg/Kg	☼	12/20/19 09:55	12/20/19 15:09	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/13/19 14:47	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-4**

**Lab Sample ID: 500-174691-19**

Date Collected: 12/06/19 10:48

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.6

## 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	☼	12/07/19 07:50	12/15/19 20:55	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
<b>Acetone</b>	<b>0.016</b>	<b>J</b>	0.018	0.0077	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Bromomethane	<0.0044	*	0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	12/07/19 07:50	12/15/19 20:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 134	12/07/19 07:50	12/15/19 20:55	1
4-Bromofluorobenzene (Surr)	116		75 - 131	12/07/19 07:50	12/15/19 20:55	1
Dibromofluoromethane	96		75 - 126	12/07/19 07:50	12/15/19 20:55	1
Toluene-d8 (Surr)	96		75 - 124	12/07/19 07:50	12/15/19 20:55	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	☼	12/16/19 18:59	12/18/19 15:11	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-4**

**Lab Sample ID: 500-174691-19**

Date Collected: 12/06/19 10:48

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
<b>2-Methylnaphthalene</b>	<b>0.052</b>	<b>J *</b>	0.082	0.0075	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
<b>Chrysene</b>	<b>0.037</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-4**

**Lab Sample ID: 500-174691-19**

Date Collected: 12/06/19 10:48

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.6

## 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	<0.040		0.040	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
<b>Phenanthrene</b>	<b>0.16</b>		0.040	0.0057	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	12/16/19 18:59	12/18/19 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	80		31 - 143	12/16/19 18:59	12/18/19 15:11	1
2-Fluorobiphenyl	97		43 - 145	12/16/19 18:59	12/18/19 15:11	1
2-Fluorophenol	85		31 - 166	12/16/19 18:59	12/18/19 15:11	1
Nitrobenzene-d5	82		37 - 147	12/16/19 18:59	12/18/19 15:11	1
Phenol-d5	90		30 - 153	12/16/19 18:59	12/18/19 15:11	1
Terphenyl-d14	105		42 - 157	12/16/19 18:59	12/18/19 15:11	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.53</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Arsenic</b>	<b>8.6</b>		0.59	0.20	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Barium</b>	<b>43</b>		0.59	0.068	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Beryllium</b>	<b>0.72</b>		0.24	0.055	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Boron</b>	<b>19</b>		3.0	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Cadmium</b>	<b>0.12</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Calcium</b>	<b>61000</b>	<b>B</b>	120	20	mg/Kg	☼	12/12/19 18:21	12/17/19 01:08	10
<b>Chromium</b>	<b>17</b>		0.59	0.29	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Cobalt</b>	<b>15</b>		0.30	0.078	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Copper</b>	<b>30</b>		0.59	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	12	6.2	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Lead</b>	<b>18</b>		0.30	0.14	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Magnesium</b>	<b>24000</b>		5.9	2.9	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Manganese</b>	<b>350</b>		0.59	0.086	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Nickel</b>	<b>39</b>		0.59	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Potassium</b>	<b>3100</b>		30	10	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Selenium</b>	<b>0.60</b>		0.59	0.35	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Silver</b>	<b>2.4</b>		0.30	0.077	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Sodium</b>	<b>210</b>		59	8.8	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Thallium</b>	<b>0.87</b>		0.59	0.30	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Vanadium</b>	<b>21</b>		0.30	0.070	mg/Kg	☼	12/12/19 18:21	12/13/19 18:55	1
<b>Zinc</b>	<b>56</b>		1.2	0.52	mg/Kg	☼	12/12/19 18:21	12/16/19 23:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:42	12/20/19 12:35	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/19/19 15:42	12/20/19 12:35	1
<b>Manganese</b>	<b>1.8</b>		0.025	0.010	mg/L		12/19/19 15:42	12/20/19 12:35	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-4**

**Lab Sample ID: 500-174691-19**

Date Collected: 12/06/19 10:48

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.6

### 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		12/14/19 17:48	12/17/19 01:39	1
<b>Barium</b>	<b>0.24</b>	<b>J</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 01:39	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Boron</b>	<b>0.22</b>		0.10	0.050	mg/L		12/14/19 17:48	12/17/19 01:39	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Calcium</b>	<b>39</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Chromium</b>	<b>0.060</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Cobalt</b>	<b>0.023</b>	<b>J</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Iron</b>	<b>39</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Lead</b>	<b>0.027</b>		0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Manganese</b>	<b>0.43</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Nickel</b>	<b>0.062</b>		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Potassium</b>	<b>21</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:39	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:48	12/17/19 01:39	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:39	1
<b>Zinc</b>	<b>0.11</b>	<b>J</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 01:39	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		12/14/19 17:48	12/16/19 18:45	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		12/16/19 09:15	12/17/19 10:44	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	0.0064	mg/Kg	☼	12/13/19 14:40	12/16/19 09:07	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.62		0.62	0.31	mg/Kg	☼	12/20/19 09:55	12/20/19 15:10	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/13/19 14:49	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-4 Dup**

**Lab Sample ID: 500-174691-20**

**Date Collected: 12/06/19 10:50**

**Matrix: Solid**

**Date Received: 12/06/19 16:30**

**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	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
<b>Acetone</b>	<b>0.0095</b>	<b>J</b>	0.018	0.0078	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Carbon disulfide	<0.0045		0.0045	0.00093	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Chloromethane	<0.0045	*	0.0045	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 134	12/07/19 07:50	12/16/19 18:41	1
4-Bromofluorobenzene (Surr)	98		75 - 131	12/07/19 07:50	12/16/19 18:41	1
Dibromofluoromethane	99		75 - 126	12/07/19 07:50	12/16/19 18:41	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/16/19 18:41	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	☼	12/16/19 18:59	12/18/19 12:28	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-4 Dup**

**Lab Sample ID: 500-174691-20**

Date Collected: 12/06/19 10:50

Matrix: Solid

Date Received: 12/06/19 16:30

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	<0.41		0.41	0.093	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2,4-Dimethylphenol	<0.41		0.41	0.15	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
<b>2-Methylnaphthalene</b>	<b>0.040</b>	<b>J *</b>	0.082	0.0075	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2-Methylphenol	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
2-Nitrophenol	<0.41		0.41	0.096	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Acenaphthene	<0.041		0.041	0.0073	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
<b>Chrysene</b>	<b>0.032</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Fluorene	<0.041		0.041	0.0057	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Hexachlorobenzene	<0.082		0.082	0.0095	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-4 Dup**

**Lab Sample ID: 500-174691-20**

Date Collected: 12/06/19 10:50

Matrix: Solid

Date Received: 12/06/19 16:30

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	<0.041		0.041	0.011	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
<b>Phenanthrene</b>	<b>0.14</b>		0.041	0.0057	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
<b>Pyrene</b>	<b>0.029</b>	<b>J</b>	0.041	0.0081	mg/Kg	☼	12/16/19 18:59	12/18/19 12:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	68		31 - 143				12/16/19 18:59	12/18/19 12:28	1
2-Fluorobiphenyl	90		43 - 145				12/16/19 18:59	12/18/19 12:28	1
2-Fluorophenol	81		31 - 166				12/16/19 18:59	12/18/19 12:28	1
Nitrobenzene-d5	75		37 - 147				12/16/19 18:59	12/18/19 12:28	1
Phenol-d5	87		30 - 153				12/16/19 18:59	12/18/19 12:28	1
Terphenyl-d14	96		42 - 157				12/16/19 18:59	12/18/19 12:28	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.57</b>	<b>J B</b>	1.2	0.23	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Arsenic</b>	<b>7.9</b>		0.60	0.21	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Barium</b>	<b>46</b>		0.60	0.068	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Beryllium</b>	<b>0.76</b>		0.24	0.056	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Boron</b>	<b>20</b>		3.0	0.28	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Cadmium</b>	<b>0.13</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Calcium</b>	<b>59000</b>	<b>B</b>	120	20	mg/Kg	☼	12/12/19 18:21	12/17/19 01:12	10
<b>Chromium</b>	<b>18</b>		0.60	0.30	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Cobalt</b>	<b>14</b>		0.30	0.079	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Copper</b>	<b>29</b>		0.60	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	12	6.2	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Lead</b>	<b>14</b>		0.30	0.14	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Magnesium</b>	<b>24000</b>		6.0	3.0	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Manganese</b>	<b>350</b>		0.60	0.087	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Nickel</b>	<b>37</b>		0.60	0.17	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Potassium</b>	<b>3500</b>		30	11	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Selenium</b>	<b>0.41</b>	<b>J</b>	0.60	0.35	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Silver</b>	<b>2.4</b>		0.30	0.077	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Sodium</b>	<b>220</b>		60	8.9	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Thallium</b>	<b>0.86</b>		0.60	0.30	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Vanadium</b>	<b>23</b>		0.30	0.071	mg/Kg	☼	12/12/19 18:21	12/13/19 18:59	1
<b>Zinc</b>	<b>54</b>		1.2	0.53	mg/Kg	☼	12/12/19 18:21	12/16/19 23:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:42	12/20/19 12:39	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/19/19 15:42	12/20/19 12:39	1
<b>Manganese</b>	<b>1.8</b>		0.025	0.010	mg/L		12/19/19 15:42	12/20/19 12:39	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B28-4 Dup**

**Lab Sample ID: 500-174691-20**

Date Collected: 12/06/19 10:50

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050	F1	0.050	0.010	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Barium</b>	<b>0.28</b>	<b>J F1</b>	0.50	0.050	mg/L		12/14/19 17:48	12/17/19 01:43	1
Beryllium	<0.0040	F1	0.0040	0.0040	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Boron</b>	<b>0.21</b>	<b>F1</b>	0.10	0.050	mg/L		12/14/19 17:48	12/17/19 01:43	1
Cadmium	<0.0050	F1	0.0050	0.0020	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Calcium</b>	<b>42</b>		2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Chromium</b>	<b>0.070</b>	<b>F1</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Cobalt</b>	<b>0.026</b>	<b>F1</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Iron</b>	<b>44</b>		0.40	0.20	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Lead</b>	<b>0.026</b>	<b>F1</b>	0.0075	0.0075	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Manganese</b>	<b>0.49</b>	<b>F1</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Nickel</b>	<b>0.074</b>	<b>F1</b>	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Potassium</b>	<b>23</b>	<b>F1</b>	2.5	0.50	mg/L		12/14/19 17:48	12/17/19 01:43	1
Selenium	<0.050	F1	0.050	0.020	mg/L		12/14/19 17:48	12/17/19 01:43	1
Silver	<0.025	F1	0.025	0.010	mg/L		12/14/19 17:48	12/17/19 01:43	1
<b>Zinc</b>	<b>0.12</b>	<b>J F1</b>	0.50	0.020	mg/L		12/14/19 17:48	12/17/19 01:43	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		12/14/19 17:48	12/16/19 18:47	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/14/19 17:48	12/16/19 18:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00027</b>		0.00020	0.00020	mg/L		12/16/19 09:15	12/17/19 10:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.025</b>		0.019	0.0063	mg/Kg	☼	12/13/19 14:40	12/16/19 09:09	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	12/20/19 09:55	12/20/19 15:10	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/13/19 14:52	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B33**

**Lab Sample ID: 500-174691-21**

Date Collected: 12/06/19 10:00

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 87.5

## 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	☼	12/07/19 07:50	12/16/19 19:07	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00067	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
1,1-Dichloroethane	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
1,1-Dichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
1,2-Dichloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
1,2-Dichloropropane	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
2-Butanone (MEK)	<0.0039		0.0039	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
2-Hexanone	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
4-Methyl-2-pentanone (MIBK)	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
<b>Acetone</b>	<b>0.024</b>		0.016	0.0068	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Bromomethane	<0.0039		0.0039	0.0015	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Carbon disulfide	<0.0039		0.0039	0.00081	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Carbon tetrachloride	<0.0016		0.0016	0.00045	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Chlorobenzene	<0.0016		0.0016	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Chloroethane	<0.0039		0.0039	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Chloroform	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Chloromethane	<0.0039 *		0.0039	0.0016	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Dibromochloromethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Ethylbenzene	<0.0016		0.0016	0.00075	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Methylene Chloride	<0.0039		0.0039	0.0015	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Styrene	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Tetrachloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Toluene	<0.0016		0.0016	0.00039	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00069	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Trichloroethene	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Vinyl chloride	<0.0016		0.0016	0.00069	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1
Xylenes, Total	<0.0031		0.0031	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 134	12/07/19 07:50	12/16/19 19:07	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/07/19 07:50	12/16/19 19:07	1
Dibromofluoromethane	95		75 - 126	12/07/19 07:50	12/16/19 19:07	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 07:50	12/16/19 19:07	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	☼	12/13/19 16:42	12/17/19 19:54	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
1,4-Dichlorobenzene	<0.19		0.19	0.048	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B33**

**Lab Sample ID: 500-174691-21**

Date Collected: 12/06/19 10:00

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 87.5

**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	0.086	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2,4-Dinitrophenol	<0.76		0.76	0.67	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2,6-Dinitrotoluene	<0.19		0.19	0.074	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2-Methylnaphthalene	<0.076	*	0.076	0.0070	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
2-Nitrophenol	<0.38		0.38	0.089	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
4,6-Dinitro-2-methylphenol	<0.76		0.76	0.30	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
4-Chloroaniline	<0.76		0.76	0.18	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
4-Nitrophenol	<0.76		0.76	0.36	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Acenaphthene	<0.038		0.038	0.0068	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Acenaphthylene</b>	<b>0.014</b>	<b>J</b>	0.038	0.0050	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Anthracene</b>	<b>0.044</b>		0.038	0.0063	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Benzo[a]anthracene</b>	<b>0.24</b>		0.038	0.0051	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Benzo[a]pyrene</b>	<b>0.32</b>		0.038	0.0073	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Benzo[b]fluoranthene</b>	<b>0.26</b>		0.038	0.0082	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Benzo[g,h,i]perylene</b>	<b>0.18</b>		0.038	0.012	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Benzo[k]fluoranthene</b>	<b>0.21</b>		0.038	0.011	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.057	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.069	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Carbazole	<0.19		0.19	0.094	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Chrysene</b>	<b>0.27</b>		0.038	0.010	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Dibenz(a,h)anthracene</b>	<b>0.042</b>		0.038	0.0073	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Dibenzofuran	<0.19		0.19	0.044	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Dimethyl phthalate	<0.19		0.19	0.049	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Fluoranthene</b>	<b>0.33</b>		0.038	0.0070	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Fluorene	<0.038		0.038	0.0053	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Hexachlorobenzene	<0.076		0.076	0.0088	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Hexachlorobutadiene	<0.19		0.19	0.059	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Hexachlorocyclopentadiene	<0.76	*	0.76	0.22	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Hexachloroethane	<0.19		0.19	0.057	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1

Euofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B33**

**Lab Sample ID: 500-174691-21**

Date Collected: 12/06/19 10:00

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 87.5

## 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>0.16</b>		0.038	0.0098	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Isophorone	<0.19		0.19	0.042	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Naphthalene	<0.038		0.038	0.0058	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Nitrobenzene	<0.038		0.038	0.0094	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
N-Nitrosodi-n-propylamine	<0.076		0.076	0.046	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Pentachlorophenol	<0.76		0.76	0.61	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Phenanthrene</b>	<b>0.14</b>		0.038	0.0053	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
<b>Pyrene</b>	<b>0.37</b>		0.038	0.0075	mg/Kg	☼	12/13/19 16:42	12/17/19 19:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	85		31 - 143				12/13/19 16:42	12/17/19 19:54	1
2-Fluorobiphenyl	103		43 - 145				12/13/19 16:42	12/17/19 19:54	1
2-Fluorophenol	53		31 - 166				12/13/19 16:42	12/17/19 19:54	1
Nitrobenzene-d5	76		37 - 147				12/13/19 16:42	12/17/19 19:54	1
Phenol-d5	63		30 - 153				12/13/19 16:42	12/17/19 19:54	1
Terphenyl-d14	101		42 - 157				12/13/19 16:42	12/17/19 19:54	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.61</b>	<b>J B</b>	1.1	0.21	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Arsenic</b>	<b>7.4</b>		0.54	0.18	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Barium</b>	<b>36</b>		0.54	0.062	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Beryllium</b>	<b>0.62</b>		0.22	0.050	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Boron</b>	<b>15</b>	<b>B</b>	2.7	0.25	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Cadmium</b>	<b>0.13</b>	<b>B</b>	0.11	0.019	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Calcium</b>	<b>50000</b>	<b>B</b>	110	18	mg/Kg	☼	12/12/19 18:09	12/16/19 16:35	10
<b>Chromium</b>	<b>16</b>		0.54	0.27	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Cobalt</b>	<b>13</b>		0.27	0.071	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Copper</b>	<b>29</b>		0.54	0.15	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Iron</b>	<b>18000</b>	<b>B</b>	11	5.6	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Lead</b>	<b>15</b>		0.27	0.12	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Magnesium</b>	<b>22000</b>		5.4	2.7	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Manganese</b>	<b>270</b>		0.54	0.078	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Nickel</b>	<b>33</b>		0.54	0.16	mg/Kg	☼	12/12/19 18:09	12/16/19 16:31	1
<b>Potassium</b>	<b>2700</b>		27	9.6	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Selenium</b>	<b>0.49</b>	<b>J</b>	0.54	0.32	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Silver</b>	<b>2.5</b>		0.27	0.070	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Sodium</b>	<b>120</b>		54	8.0	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Thallium</b>	<b>0.85</b>		0.54	0.27	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Vanadium</b>	<b>19</b>		0.27	0.064	mg/Kg	☼	12/12/19 18:09	12/13/19 14:39	1
<b>Zinc</b>	<b>48</b>		1.1	0.47	mg/Kg	☼	12/12/19 18:09	12/16/19 16:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:44	12/20/19 09:23	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/19/19 15:44	12/20/19 09:23	1
<b>Manganese</b>	<b>0.90</b>		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 09:23	1
Nickel	<0.025		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 09:23	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B33**

**Lab Sample ID: 500-174691-21**

Date Collected: 12/06/19 10:00

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 87.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.043	J	0.050	0.010	mg/L		12/14/19 17:51	12/16/19 09:23	1
Barium	0.32	J	0.50	0.050	mg/L		12/14/19 17:51	12/16/19 09:23	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/14/19 17:51	12/16/19 09:23	1
Boron	0.18		0.10	0.050	mg/L		12/14/19 17:51	12/16/19 09:23	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:51	12/16/19 09:23	1
Calcium	31		2.5	0.50	mg/L		12/14/19 17:51	12/16/19 09:23	1
Chromium	0.099		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:23	1
Cobalt	0.045		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:23	1
Iron	100		0.40	0.20	mg/L		12/14/19 17:51	12/16/19 09:23	1
Lead	0.088		0.0075	0.0075	mg/L		12/14/19 17:51	12/16/19 09:23	1
Manganese	0.47		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:23	1
Nickel	0.15		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:23	1
Potassium	29		2.5	0.50	mg/L		12/14/19 17:51	12/16/19 09:23	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:51	12/16/19 09:23	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:23	1
Zinc	0.23	J ^	0.50	0.020	mg/L		12/14/19 17:51	12/16/19 09:23	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		12/19/19 15:44	12/20/19 12:47	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		12/14/19 17:51	12/16/19 19:02	1
Thallium	0.0022		0.0020	0.0020	mg/L		12/14/19 17:51	12/16/19 19:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00026		0.00020	0.00020	mg/L		12/16/19 09:15	12/17/19 08:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.041		0.017	0.0056	mg/Kg	☼	12/13/19 14:40	12/16/19 09:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	12/19/19 10:30	12/19/19 15:43	1
pH	7.6		0.2	0.2	SU			12/13/19 14:54	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B32**

**Lab Sample ID: 500-174691-22**

Date Collected: 12/06/19 10:05

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.2

## 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	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
<b>Acetone</b>	<b>0.039</b>		0.018	0.0078	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Chloromethane	<0.0045 *		0.0045	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 134	12/07/19 07:50	12/16/19 19:32	1
4-Bromofluorobenzene (Surr)	99		75 - 131	12/07/19 07:50	12/16/19 19:32	1
Dibromofluoromethane	97		75 - 126	12/07/19 07:50	12/16/19 19:32	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/16/19 19:32	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	☼	12/13/19 16:42	12/17/19 15:20	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B32**

**Lab Sample ID: 500-174691-22**

Date Collected: 12/06/19 10:05

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2,4-Dinitrophenol	<0.78		0.78	0.68	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2-Methylnaphthalene	<0.078	*	0.078	0.0071	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Anthracene	<0.038		0.038	0.0064	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Benzo[b]fluoranthene	<0.038		0.038	0.0083	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Butyl benzyl phthalate	<0.19		0.19	0.073	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Carbazole	<0.19		0.19	0.096	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Chrysene	<0.038		0.038	0.011	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Fluoranthene	<0.038		0.038	0.0072	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Hexachlorobenzene	<0.078		0.078	0.0089	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Hexachlorocyclopentadiene	<0.78	*	0.78	0.22	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B32**

**Lab Sample ID: 500-174691-22**

Date Collected: 12/06/19 10:05

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.2

**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	<0.038		0.038	0.010	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Naphthalene	<0.038		0.038	0.0059	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Phenanthrene	<0.038		0.038	0.0054	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Pyrene	<0.038		0.038	0.0077	mg/Kg	☼	12/13/19 16:42	12/17/19 15:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	94		31 - 143				12/13/19 16:42	12/17/19 15:20	1
2-Fluorobiphenyl	96		43 - 145				12/13/19 16:42	12/17/19 15:20	1
2-Fluorophenol	59		31 - 166				12/13/19 16:42	12/17/19 15:20	1
Nitrobenzene-d5	70		37 - 147				12/13/19 16:42	12/17/19 15:20	1
Phenol-d5	63		30 - 153				12/13/19 16:42	12/17/19 15:20	1
Terphenyl-d14	99		42 - 157				12/13/19 16:42	12/17/19 15:20	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</b>	1.1	0.22	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Arsenic</b>	<b>11</b>		0.57	0.19	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Barium</b>	<b>43</b>		0.57	0.065	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Beryllium</b>	<b>0.67</b>		0.23	0.053	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Boron</b>	<b>13</b>	<b>B</b>	2.8	0.27	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Cadmium</b>	<b>0.28</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Calcium</b>	<b>32000</b>	<b>B</b>	11	1.9	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Chromium</b>	<b>15</b>		0.57	0.28	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Cobalt</b>	<b>14</b>		0.28	0.075	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Copper</b>	<b>52</b>		0.57	0.16	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	11	5.9	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Lead</b>	<b>53</b>		0.28	0.13	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Magnesium</b>	<b>17000</b>		5.7	2.8	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Manganese</b>	<b>320</b>		0.57	0.083	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Nickel</b>	<b>34</b>		0.57	0.17	mg/Kg	☼	12/12/19 18:09	12/16/19 16:47	1
<b>Potassium</b>	<b>2400</b>		28	10	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Selenium</b>	<b>0.43</b>	<b>J</b>	0.57	0.34	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Silver</b>	<b>2.4</b>		0.28	0.074	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Sodium</b>	<b>110</b>		57	8.4	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Thallium</b>	<b>1.1</b>		0.57	0.28	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Vanadium</b>	<b>20</b>		0.28	0.067	mg/Kg	☼	12/12/19 18:09	12/13/19 14:43	1
<b>Zinc</b>	<b>84</b>		1.1	0.50	mg/Kg	☼	12/12/19 18:09	12/16/19 16:47	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		12/19/19 15:44	12/20/19 09:27	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/19/19 15:44	12/20/19 09:27	1
Chromium	<0.025		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 09:27	1
Iron	<0.40		0.40	0.20	mg/L		12/19/19 15:44	12/20/19 09:27	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

**Client Sample ID: 2615V2-1-B32**

**Lab Sample ID: 500-174691-22**

Date Collected: 12/06/19 10:05

Matrix: Solid

Date Received: 12/06/19 16:30

Percent Solids: 85.2

**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		12/19/19 15:44	12/20/19 09:27	1
<b>Manganese</b>	<b>0.74</b>		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 09:27	1
Nickel	<0.025		0.025	0.010	mg/L		12/19/19 15:44	12/20/19 09:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.091</b>		0.050	0.010	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Barium</b>	<b>0.33</b>	J	0.50	0.050	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Beryllium</b>	<b>0.0077</b>		0.0040	0.0040	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Boron</b>	<b>0.19</b>		0.10	0.050	mg/L		12/14/19 17:51	12/16/19 09:27	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Calcium</b>	<b>28</b>		2.5	0.50	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Chromium</b>	<b>0.11</b>		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Cobalt</b>	<b>0.067</b>		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Iron</b>	<b>170</b>		0.40	0.20	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Lead</b>	<b>0.17</b>		0.0075	0.0075	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Manganese</b>	<b>0.64</b>		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Nickel</b>	<b>0.20</b>		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Potassium</b>	<b>31</b>		2.5	0.50	mg/L		12/14/19 17:51	12/16/19 09:27	1
Selenium	<0.050		0.050	0.020	mg/L		12/14/19 17:51	12/16/19 09:27	1
Silver	<0.025		0.025	0.010	mg/L		12/14/19 17:51	12/16/19 09:27	1
<b>Zinc</b>	<b>0.47</b>	J ^	0.50	0.020	mg/L		12/14/19 17:51	12/16/19 09:27	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		12/19/19 15:44	12/20/19 12:49	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		12/14/19 17:51	12/16/19 19:05	1
<b>Thallium</b>	<b>0.0025</b>		0.0020	0.0020	mg/L		12/14/19 17:51	12/16/19 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00037</b>		0.00020	0.00020	mg/L		12/16/19 09:15	12/17/19 08:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.070</b>		0.019	0.0062	mg/Kg	☼	12/13/19 14:40	12/16/19 09:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	12/19/19 10:30	12/19/19 15:43	1
<b>pH</b>	<b>7.5</b>		0.2	0.2	SU			12/13/19 14:56	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

## 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.

### 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.
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.

### General Chemistry

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control 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)

Eurofins TestAmerica, Chicago

# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174691-1

## 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

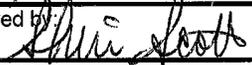
<b>Client Contact</b> Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334      500-174691 COC Contact: Colleen Grey email: cgrey@andrews-eng.com		<b>Laboratory</b> Lab: <b>Test America - Chicago</b> Address: <b>2417 Bond Street</b> <b>University Park, IL 60484</b> Phone: <b>708-534-5200</b> Contact: <b>Dick Wright</b> email: richard.wright@testamericainc.com	Project Name: <u>AC7-28A</u> Project No.: <u>PTB/WO'184-006/28A</u> TAT: <input 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>ROBERT SENOW</u>	COC No.: <u>1</u> of <u>4</u> Lab Job No.: <u>500-174691</u> Sample Temp: <u>29, 39, 18, 34</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													
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	2615V2-1-B31-1	12-6	0930	S	X	X					X	X	X	X	X			
2	2615V2-1-B31-2		0933															
3	2615V2-1-B31-2DUP		0935															
4	2615V2-1-B31-3		0938															
5	2615V2-1-B31-4		0940															
6	2615V2-1-B30-1		1010															
7	2615V2-1-B30-2		1013															
8	2615V2-1-B30-3		1015															
9	2615V2-1-B30-4		1018															
10	2615V2-1-B34-1		0950															
11	2615V2-1-B34-2		0955															

**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>12-6-19 1520</u>	Received by: 	Date/Time: <u>12/6/19 1520</u>
Relinquished by: 	Date/Time: <u>12/6/19 1630</u>	Received by: 	Date/Time: <u>12/6/19 1630</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: 500-174685-1  
Client Project/Site: IDOT - AE7-028

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
12/20/2019 3:35:36 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 - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-1**

**Lab Sample ID: 500-174685-1**

**Date Collected: 12/05/19 13:00**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**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	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
<b>Acetone</b>	<b>0.0079</b>	<b>J</b>	0.017	0.0074	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 11:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	12/07/19 07:50	12/13/19 11:30	1
4-Bromofluorobenzene (Surr)	106		75 - 131	12/07/19 07:50	12/13/19 11:30	1
Dibromofluoromethane	88		75 - 126	12/07/19 07:50	12/13/19 11:30	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 07:50	12/13/19 11:30	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	F1	0.19	0.042	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-1**

**Lab Sample ID: 500-174685-1**

Date Collected: 12/05/19 13:00

Matrix: Solid

Date Received: 12/06/19 11:15

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	☼	12/16/19 08:17	12/18/19 02:49	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2,4-Dinitrotoluene	<0.19		0.19	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
<b>2-Methylnaphthalene</b>	<b>0.25</b>		0.078	0.0071	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2-Methylphenol	<0.19	F2	0.19	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
2-Nitrophenol	<0.38	F1 F2	0.38	0.091	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
3 & 4 Methylphenol	<0.19		0.19	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
3,3'-Dichlorobenzidine	<0.19	F1 F2	0.19	0.054	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
4,6-Dinitro-2-methylphenol	<0.78	F2	0.78	0.31	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Acenaphthene	<0.038		0.038	0.0069	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
<b>Anthracene</b>	<b>0.025</b>	<b>J</b>	0.038	0.0065	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Benzo[a]anthracene	<0.038		0.038	0.0052	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Benzo[a]pyrene	<0.038		0.038	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Benzo[b]fluoranthene	<0.038	F1	0.038	0.0083	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
<b>Benzo[g,h,i]perylene</b>	<b>0.015</b>	<b>J F1</b>	0.038	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Benzo[k]fluoranthene	<0.038		0.038	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Bis(2-chloroethoxy)methane	<0.19	F2	0.19	0.039	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Bis(2-chloroethyl)ether	<0.19	F1	0.19	0.058	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
<b>Chrysene</b>	<b>0.042</b>		0.038	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Dibenz(a,h)anthracene	<0.038	F1	0.038	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Diethyl phthalate	<0.19		0.19	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
<b>Fluoranthene</b>	<b>0.047</b>		0.038	0.0072	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Hexachlorocyclopentadiene	<0.78	F1	0.78	0.22	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-1**

**Lab Sample ID: 500-174685-1**

Date Collected: 12/05/19 13:00

Matrix: Solid

Date Received: 12/06/19 11:15

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	F1	0.038	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
<b>Naphthalene</b>	<b>0.059</b>		0.038	0.0059	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Nitrobenzene	<0.038		0.038	0.0096	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
<b>Phenanthrene</b>	<b>0.16</b>		0.038	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
<b>Pyrene</b>	<b>0.058</b>		0.038	0.0077	mg/Kg	☼	12/16/19 08:17	12/18/19 02:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	78		31 - 143				12/16/19 08:17	12/18/19 02:49	1
2-Fluorobiphenyl	90		43 - 145				12/16/19 08:17	12/18/19 02:49	1
2-Fluorophenol	103		31 - 166				12/16/19 08:17	12/18/19 02:49	1
Nitrobenzene-d5	82		37 - 147				12/16/19 08:17	12/18/19 02:49	1
Phenol-d5	86		30 - 153				12/16/19 08:17	12/18/19 02:49	1
Terphenyl-d14	125		42 - 157				12/16/19 08:17	12/18/19 02:49	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 F1</b>	1.2	0.23	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Arsenic</b>	<b>6.8</b>		0.58	0.20	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Barium</b>	<b>29</b>		0.58	0.066	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Beryllium</b>	<b>0.64</b>		0.23	0.054	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Boron</b>	<b>16</b>	<b>B</b>	2.9	0.27	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Calcium</b>	<b>34000</b>	<b>F2 B</b>	12	2.0	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Chromium</b>	<b>15</b>		0.58	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Cobalt</b>	<b>10</b>		0.29	0.076	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Copper</b>	<b>35</b>		0.58	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Iron</b>	<b>19000</b>	<b>B ^</b>	12	6.1	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Lead</b>	<b>17</b>	<b>F1</b>	0.29	0.13	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Magnesium</b>	<b>21000</b>	<b>F2</b>	5.8	2.9	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Manganese</b>	<b>260</b>	<b>F2</b>	0.58	0.084	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Nickel</b>	<b>33</b>	<b>F1</b>	0.58	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Potassium</b>	<b>2900</b>		29	10	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Selenium</b>	<b>0.80</b>	<b>F1</b>	0.58	0.34	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Silver</b>	<b>2.2</b>		0.29	0.075	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Sodium</b>	<b>170</b>		58	8.6	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Thallium</b>	<b>1.1</b>	<b>F1</b>	0.58	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Vanadium</b>	<b>18</b>		0.29	0.069	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	1
<b>Zinc</b>	<b>49</b>	<b>F1</b>	1.2	0.51	mg/Kg	☼	12/11/19 18:00	12/12/19 21:52	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		12/13/19 15:19	12/16/19 17:41	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 17:41	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 17:41	1
<b>Boron</b>	<b>0.062</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 17:41	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-1**

**Lab Sample ID: 500-174685-1**

Date Collected: 12/05/19 13:00

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 85.7

## 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		12/13/19 15:19	12/16/19 17:41	1
<b>Calcium</b>	<b>91</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:41	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:41	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:41	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 17:41	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 17:41	1
Manganese	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:41	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:41	1
<b>Potassium</b>	<b>1.6 J</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:41	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 17:41	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:41	1
<b>Zinc</b>	<b>0.064 J ^ B</b>		0.50	0.020	mg/L		12/13/19 15:19	12/16/19 17:41	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		12/13/19 15:19	12/16/19 19:17	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:17	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		12/16/19 09:15	12/17/19 08:48	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.019</b>		0.019	0.0062	mg/Kg	☼	12/13/19 14:40	12/16/19 07:09	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.56		0.56	0.28	mg/Kg	☼	12/13/19 10:59	12/13/19 15:30	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 16:05	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-1 Dup**

**Lab Sample ID: 500-174685-2**

**Date Collected: 12/05/19 13:03**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 83.5**

**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	☼	12/07/19 07:50	12/13/19 11:55	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
<b>Acetone</b>	<b>0.0084</b>	<b>J</b>	0.016	0.0069	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Chloromethane	<0.0040		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 11:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 134	12/07/19 07:50	12/13/19 11:55	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/07/19 07:50	12/13/19 11:55	1
Dibromofluoromethane	87		75 - 126	12/07/19 07:50	12/13/19 11:55	1
Toluene-d8 (Surr)	98		75 - 124	12/07/19 07:50	12/13/19 11:55	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	☼	12/16/19 08:17	12/18/19 03:19	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-1 Dup**

**Lab Sample ID: 500-174685-2**

Date Collected: 12/05/19 13:03

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 83.5

**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	☼	12/16/19 08:17	12/18/19 03:19	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2,4-Dinitrophenol	<0.80	*	0.80	0.70	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>2-Methylnaphthalene</b>	<b>0.0080</b>	<b>J</b>	0.080	0.0073	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Acenaphthene</b>	<b>0.036</b>	<b>J</b>	0.039	0.0071	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Acenaphthylene</b>	<b>0.012</b>	<b>J</b>	0.039	0.0052	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Anthracene</b>	<b>0.063</b>		0.039	0.0066	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Benzo[a]anthracene</b>	<b>0.21</b>		0.039	0.0053	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Benzo[a]pyrene</b>	<b>0.28</b>		0.039	0.0077	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Benzo[b]fluoranthene</b>	<b>0.34</b>		0.039	0.0085	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Benzo[g,h,i]perylene</b>	<b>0.084</b>		0.039	0.013	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Benzo[k]fluoranthene</b>	<b>0.15</b>		0.039	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.11</b>	<b>J</b>	0.20	0.072	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Butyl benzyl phthalate	<0.20		0.20	0.075	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Chrysene</b>	<b>0.26</b>		0.039	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Dibenz(a,h)anthracene</b>	<b>0.028</b>	<b>J</b>	0.039	0.0077	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Fluoranthene</b>	<b>0.52</b>		0.039	0.0073	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Fluorene</b>	<b>0.036</b>	<b>J</b>	0.039	0.0056	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-1 Dup**

**Lab Sample ID: 500-174685-2**

Date Collected: 12/05/19 13:03

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 83.5

**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>0.092</b>		0.039	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Naphthalene</b>	<b>0.0081</b>	<b>J</b>	0.039	0.0061	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Phenanthrene</b>	<b>0.24</b>		0.039	0.0055	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	1
<b>Pyrene</b>	<b>0.50</b>		0.039	0.0079	mg/Kg	☼	12/16/19 08:17	12/18/19 03:19	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	86		31 - 143				12/16/19 08:17	12/18/19 03:19	1
2-Fluorobiphenyl	100		43 - 145				12/16/19 08:17	12/18/19 03:19	1
2-Fluorophenol	114		31 - 166				12/16/19 08:17	12/18/19 03:19	1
Nitrobenzene-d5	64		37 - 147				12/16/19 08:17	12/18/19 03:19	1
Phenol-d5	85		30 - 153				12/16/19 08:17	12/18/19 03:19	1
Terphenyl-d14	125		42 - 157				12/16/19 08:17	12/18/19 03:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.55</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Arsenic</b>	<b>7.5</b>		0.55	0.19	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Barium</b>	<b>55</b>		0.55	0.063	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Beryllium</b>	<b>0.82</b>		0.22	0.052	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Boron</b>	<b>19</b>	<b>B</b>	2.8	0.26	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Cadmium</b>	<b>0.45</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Calcium</b>	<b>29000</b>	<b>B</b>	11	1.9	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Chromium</b>	<b>20</b>		0.55	0.27	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Cobalt</b>	<b>17</b>		0.28	0.073	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Copper</b>	<b>44</b>		0.55	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Iron</b>	<b>24000</b>	<b>B</b>	11	5.8	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Lead</b>	<b>77</b>		0.28	0.13	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Magnesium</b>	<b>18000</b>		5.5	2.8	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Manganese</b>	<b>340</b>		0.55	0.080	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Nickel</b>	<b>45</b>		0.55	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Potassium</b>	<b>3500</b>		28	9.8	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Selenium</b>	<b>0.84</b>		0.55	0.33	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Silver</b>	<b>2.6</b>		0.28	0.072	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Sodium</b>	<b>170</b>		55	8.2	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Thallium</b>	<b>1.3</b>		0.55	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Vanadium</b>	<b>22</b>		0.28	0.065	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	1
<b>Zinc</b>	<b>95</b>		1.1	0.49	mg/Kg	☼	12/11/19 18:00	12/12/19 22:29	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		12/13/19 15:19	12/16/19 17:45	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 17:45	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 17:45	1
<b>Boron</b>	<b>0.057</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 17:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-1 Dup**

**Lab Sample ID: 500-174685-2**

Date Collected: 12/05/19 13:03

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 83.5

**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		12/13/19 15:19	12/16/19 17:45	1
<b>Calcium</b>	<b>130</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:45	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:45	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:45	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 17:45	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 17:45	1
Manganese	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:45	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:45	1
<b>Potassium</b>	<b>2.4 J</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:45	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 17:45	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:45	1
<b>Zinc</b>	<b>0.27 J ^ B</b>		0.50	0.020	mg/L		12/13/19 15:19	12/16/19 17:45	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		12/13/19 15:19	12/16/19 19:19	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:19	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		12/16/19 09:15	12/17/19 08:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.098</b>		0.018	0.0061	mg/Kg	☼	12/13/19 14:40	12/16/19 07:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.43		0.43	0.21	mg/Kg	☼	12/13/19 11:03	12/13/19 15:30	1
<b>pH</b>	<b>7.5</b>		0.2	0.2	SU			12/12/19 16:08	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-2**

**Lab Sample ID: 500-174685-3**

Date Collected: 12/05/19 13:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.5

## 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	☼	12/07/19 07:50	12/13/19 12:21	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00077	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
1,1-Dichloroethane	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
1,1-Dichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
1,2-Dichloroethane	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
2-Butanone (MEK)	<0.0045		0.0045	0.0020	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
2-Hexanone	<0.0045		0.0045	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Acetone	<0.018		0.018	0.0078	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Benzene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Bromomethane	<0.0045		0.0045	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Carbon disulfide	<0.0045		0.0045	0.00094	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Chloroethane	<0.0045		0.0045	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Chloromethane	<0.0045		0.0045	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Dibromochloromethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Ethylbenzene	<0.0018		0.0018	0.00086	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Methylene Chloride	<0.0045		0.0045	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00080	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Trichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Vinyl chloride	<0.0018		0.0018	0.00080	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1
Xylenes, Total	<0.0036		0.0036	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	12/07/19 07:50	12/13/19 12:21	1
4-Bromofluorobenzene (Surr)	102		75 - 131	12/07/19 07:50	12/13/19 12:21	1
Dibromofluoromethane	86		75 - 126	12/07/19 07:50	12/13/19 12:21	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 07:50	12/13/19 12:21	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	☼	12/16/19 08:17	12/18/19 03:49	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-2**

**Lab Sample ID: 500-174685-3**

Date Collected: 12/05/19 13:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.5

**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	☼	12/16/19 08:17	12/18/19 03:49	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2,4-Dinitrophenol	<0.81	*	0.81	0.70	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
<b>2-Methylnaphthalene</b>	<b>0.040</b>	<b>J</b>	0.081	0.0074	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
<b>Acenaphthene</b>	<b>0.040</b>		0.040	0.0072	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
<b>Chrysene</b>	<b>0.022</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-2**

**Lab Sample ID: 500-174685-3**

Date Collected: 12/05/19 13:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.5

**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	☼	12/16/19 08:17	12/18/19 03:49	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Pentachlorophenol	<0.81		0.81	0.64	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
<b>Phenanthrene</b>	<b>0.16</b>		0.040	0.0056	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
<b>Pyrene</b>	<b>0.035</b>	<b>J</b>	0.040	0.0079	mg/Kg	☼	12/16/19 08:17	12/18/19 03:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	68		31 - 143				12/16/19 08:17	12/18/19 03:49	1
2-Fluorobiphenyl	85		43 - 145				12/16/19 08:17	12/18/19 03:49	1
2-Fluorophenol	98		31 - 166				12/16/19 08:17	12/18/19 03:49	1
Nitrobenzene-d5	82		37 - 147				12/16/19 08:17	12/18/19 03:49	1
Phenol-d5	84		30 - 153				12/16/19 08:17	12/18/19 03:49	1
Terphenyl-d14	128		42 - 157				12/16/19 08:17	12/18/19 03:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.41</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Arsenic</b>	<b>8.2</b>		0.60	0.21	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Barium</b>	<b>42</b>		0.60	0.069	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Beryllium</b>	<b>0.86</b>		0.24	0.056	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Boron</b>	<b>21</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Cadmium</b>	<b>0.11</b>	<b>J B</b>	0.12	0.022	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Calcium</b>	<b>45000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:00	12/13/19 09:42	10
<b>Chromium</b>	<b>18</b>		0.60	0.30	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Cobalt</b>	<b>15</b>		0.30	0.079	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Copper</b>	<b>34</b>		0.60	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	12	6.3	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Lead</b>	<b>16</b>		0.30	0.14	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Magnesium</b>	<b>23000</b>		6.0	3.0	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Manganese</b>	<b>320</b>		0.60	0.087	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Nickel</b>	<b>40</b>		0.60	0.18	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Potassium</b>	<b>4100</b>		30	11	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Selenium</b>	<b>0.78</b>		0.60	0.35	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Silver</b>	<b>2.0</b>		0.30	0.078	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Sodium</b>	<b>310</b>		60	8.9	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Thallium</b>	<b>0.90</b>		0.60	0.30	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Vanadium</b>	<b>22</b>		0.30	0.071	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	1
<b>Zinc</b>	<b>50</b>		1.2	0.53	mg/Kg	☼	12/11/19 18:00	12/12/19 22:33	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		12/13/19 15:19	12/16/19 17:49	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 17:49	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 17:49	1
<b>Boron</b>	<b>0.068</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 17:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-2**

**Lab Sample ID: 500-174685-3**

Date Collected: 12/05/19 13:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.5

**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		12/13/19 15:19	12/16/19 17:49	1
<b>Calcium</b>	<b>130</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:49	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:49	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:49	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 17:49	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 17:49	1
<b>Manganese</b>	<b>0.13</b>		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:49	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:49	1
<b>Potassium</b>	<b>3.0</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:49	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 17:49	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:49	1
<b>Zinc</b>	<b>0.070</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 17:49	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		12/13/19 15:19	12/16/19 19:22	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:22	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		12/16/19 09:15	12/17/19 08:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.019</b>		0.019	0.0062	mg/Kg	☼	12/13/19 14:40	12/16/19 07:13	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	12/13/19 11:06	12/13/19 15:31	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 16:10	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-3**

**Lab Sample ID: 500-174685-4**

Date Collected: 12/05/19 13:10

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.0

## 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	☼	12/07/19 07:50	12/13/19 12:47	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
<b>Acetone</b>	<b>0.023</b>		0.018	0.0080	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 12:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/07/19 07:50	12/13/19 12:47	1
4-Bromofluorobenzene (Surr)	107		75 - 131	12/07/19 07:50	12/13/19 12:47	1
Dibromofluoromethane	87		75 - 126	12/07/19 07:50	12/13/19 12:47	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 07:50	12/13/19 12:47	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	☼	12/16/19 08:17	12/18/19 04:18	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-3**

**Lab Sample ID: 500-174685-4**

Date Collected: 12/05/19 13:10

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.0

**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	0.092	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2,4-Dinitrophenol	<0.82	*	0.82	0.71	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
<b>2-Methylnaphthalene</b>	<b>0.030</b>	<b>J</b>	0.082	0.0074	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
<b>Acenaphthene</b>	<b>0.034</b>	<b>J</b>	0.040	0.0073	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
<b>Chrysene</b>	<b>0.021</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
<b>Fluoranthene</b>	<b>0.029</b>	<b>J</b>	0.040	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
<b>Fluorene</b>	<b>0.032</b>	<b>J</b>	0.040	0.0057	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-3**

**Lab Sample ID: 500-174685-4**

Date Collected: 12/05/19 13:10

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.0

**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	☼	12/16/19 08:17	12/18/19 04:18	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
<b>Phenanthrene</b>	<b>0.090</b>		0.040	0.0056	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	1
<b>Pyrene</b>	<b>0.021</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	12/16/19 08:17	12/18/19 04:18	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	60		31 - 143				12/16/19 08:17	12/18/19 04:18	1
2-Fluorobiphenyl	88		43 - 145				12/16/19 08:17	12/18/19 04:18	1
2-Fluorophenol	92		31 - 166				12/16/19 08:17	12/18/19 04:18	1
Nitrobenzene-d5	78		37 - 147				12/16/19 08:17	12/18/19 04:18	1
Phenol-d5	85		30 - 153				12/16/19 08:17	12/18/19 04:18	1
Terphenyl-d14	133		42 - 157				12/16/19 08:17	12/18/19 04:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.55</b>	<b>J</b>	1.2	0.22	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Arsenic</b>	<b>7.6</b>		0.58	0.20	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Barium</b>	<b>48</b>		0.58	0.066	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Beryllium</b>	<b>0.84</b>		0.23	0.054	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Boron</b>	<b>24</b>	<b>B</b>	2.9	0.27	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Cadmium</b>	<b>0.088</b>	<b>J B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Calcium</b>	<b>52000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:00	12/13/19 09:46	10
<b>Chromium</b>	<b>18</b>		0.58	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Cobalt</b>	<b>14</b>		0.29	0.076	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Copper</b>	<b>30</b>		0.58	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	12	6.0	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Lead</b>	<b>15</b>		0.29	0.13	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Magnesium</b>	<b>24000</b>		5.8	2.9	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Manganese</b>	<b>350</b>		0.58	0.084	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Nickel</b>	<b>37</b>		0.58	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Potassium</b>	<b>4400</b>		29	10	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Selenium</b>	<b>0.44</b>	<b>J</b>	0.58	0.34	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Silver</b>	<b>2.4</b>		0.29	0.075	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Sodium</b>	<b>300</b>		58	8.5	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Thallium</b>	<b>0.78</b>		0.58	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Vanadium</b>	<b>24</b>		0.29	0.068	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	1
<b>Zinc</b>	<b>52</b>		1.2	0.51	mg/Kg	☼	12/11/19 18:00	12/12/19 22:37	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		12/13/19 15:19	12/16/19 17:53	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 17:53	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 17:53	1
<b>Boron</b>	<b>0.070</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 17:53	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-3**

**Lab Sample ID: 500-174685-4**

Date Collected: 12/05/19 13:10

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.0

**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		12/13/19 15:19	12/16/19 17:53	1
<b>Calcium</b>	<b>17</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:53	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:53	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:53	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 17:53	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 17:53	1
<b>Manganese</b>	<b>0.016</b>	<b>J</b>	0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:53	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:53	1
<b>Potassium</b>	<b>1.7</b>	<b>J</b>	2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:53	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 17:53	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:53	1
<b>Zinc</b>	<b>0.16</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 17:53	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		12/13/19 15:19	12/16/19 19:24	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:24	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		12/16/19 09:15	12/17/19 09:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.015</b>	<b>J</b>	0.020	0.0067	mg/Kg	☼	12/13/19 14:40	12/16/19 07:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.23	mg/Kg	☼	12/13/19 11:09	12/13/19 15:31	1
<b>pH</b>	<b>7.9</b>		0.2	0.2	SU			12/12/19 16:13	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-4**

**Lab Sample ID: 500-174685-5**

Date Collected: 12/05/19 13:15

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.1

**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	☼	12/07/19 07:50	12/13/19 13:13	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00075	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
1,1-Dichloroethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
1,2-Dichloropropane	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
<b>Acetone</b>	<b>0.037</b>		0.018	0.0077	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Bromoform	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Carbon disulfide	<0.0044		0.0044	0.00091	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Ethylbenzene	<0.0018		0.0018	0.00084	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Styrene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Toluene	<0.0018		0.0018	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Trichloroethene	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 13:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/07/19 07:50	12/13/19 13:13	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/07/19 07:50	12/13/19 13:13	1
Dibromofluoromethane	86		75 - 126	12/07/19 07:50	12/13/19 13:13	1
Toluene-d8 (Surr)	98		75 - 124	12/07/19 07:50	12/13/19 13:13	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	☼	12/16/19 08:17	12/19/19 02:24	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-4**

**Lab Sample ID: 500-174685-5**

Date Collected: 12/05/19 13:15

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2,4-Dinitrophenol	<0.82	*	0.82	0.71	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2-Methylnaphthalene	<0.082		0.082	0.0074	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.32	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
<b>Fluoranthene</b>	<b>0.029</b>	<b>J</b>	0.040	0.0075	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-4**

**Lab Sample ID: 500-174685-5**

Date Collected: 12/05/19 13:15

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.1

**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	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
<b>Phenanthrene</b>	<b>0.059</b>		0.040	0.0056	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	1
<b>Pyrene</b>	<b>0.010</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	12/16/19 08:17	12/19/19 02:24	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	28	X	31 - 143				12/16/19 08:17	12/19/19 02:24	1
2-Fluorobiphenyl	60		43 - 145				12/16/19 08:17	12/19/19 02:24	1
2-Fluorophenol	61		31 - 166				12/16/19 08:17	12/19/19 02:24	1
Nitrobenzene-d5	48		37 - 147				12/16/19 08:17	12/19/19 02:24	1
Phenol-d5	52		30 - 153				12/16/19 08:17	12/19/19 02:24	1
Terphenyl-d14	56		42 - 157				12/16/19 08:17	12/19/19 02:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.53</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Arsenic</b>	<b>7.3</b>		0.59	0.20	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Barium</b>	<b>44</b>		0.59	0.067	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Beryllium</b>	<b>0.72</b>		0.24	0.055	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Boron</b>	<b>18</b>	<b>B</b>	2.9	0.27	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Calcium</b>	<b>59000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:00	12/13/19 09:50	10
<b>Chromium</b>	<b>16</b>		0.59	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Cobalt</b>	<b>13</b>		0.29	0.077	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Copper</b>	<b>27</b>		0.59	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	12	6.1	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Lead</b>	<b>13</b>		0.29	0.14	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Magnesium</b>	<b>25000</b>		5.9	2.9	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Manganese</b>	<b>340</b>		0.59	0.085	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Nickel</b>	<b>34</b>		0.59	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Potassium</b>	<b>3300</b>		29	10	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Selenium</b>	<b>0.37</b>	<b>J</b>	0.59	0.35	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Silver</b>	<b>2.0</b>		0.29	0.076	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Sodium</b>	<b>270</b>		59	8.7	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Thallium</b>	<b>0.75</b>		0.59	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Vanadium</b>	<b>19</b>		0.29	0.069	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	1
<b>Zinc</b>	<b>60</b>		1.2	0.52	mg/Kg	☼	12/11/19 18:00	12/12/19 22:41	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		12/13/19 15:19	12/16/19 17:57	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 17:57	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 17:57	1
<b>Boron</b>	<b>0.087</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 17:57	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B39-4**

**Lab Sample ID: 500-174685-5**

Date Collected: 12/05/19 13:15

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.1

**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		12/13/19 15:19	12/16/19 17:57	1
<b>Calcium</b>	<b>15</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:57	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:57	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:57	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 17:57	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 17:57	1
<b>Manganese</b>	<b>0.017</b>	<b>J</b>	0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:57	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:57	1
<b>Potassium</b>	<b>1.8</b>	<b>J</b>	2.5	0.50	mg/L		12/13/19 15:19	12/16/19 17:57	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 17:57	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 17:57	1
<b>Zinc</b>	<b>0.12</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 17:57	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		12/13/19 15:19	12/16/19 19:27	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:27	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		12/16/19 09:15	12/17/19 09:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.014</b>	<b>J</b>	0.019	0.0063	mg/Kg	☼	12/13/19 14:40	12/16/19 07:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.52		0.52	0.26	mg/Kg	☼	12/13/19 11:13	12/13/19 15:32	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/12/19 16:16	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-1**

**Lab Sample ID: 500-174685-6**

**Date Collected: 12/05/19 13:20**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 88.5**

**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	☼	12/07/19 07:50	12/13/19 13:38	1
1,1,2,2-Tetrachloroethane	<0.0015		0.0015	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
1,1,2-Trichloroethane	<0.0015		0.0015	0.00065	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
1,1-Dichloroethane	<0.0015		0.0015	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
1,1-Dichloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
1,2-Dichloroethane	<0.0038		0.0038	0.0012	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
1,2-Dichloropropane	<0.0015		0.0015	0.00039	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
1,3-Dichloropropene, Total	<0.0015		0.0015	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
2-Butanone (MEK)	<0.0038		0.0038	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
2-Hexanone	<0.0038		0.0038	0.0012	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
4-Methyl-2-pentanone (MIBK)	<0.0038		0.0038	0.0011	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
<b>Acetone</b>	<b>0.0067</b>	<b>J</b>	0.015	0.0066	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Benzene	<0.0015		0.0015	0.00039	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Bromodichloromethane	<0.0015		0.0015	0.00031	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Bromoform	<0.0015		0.0015	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Bromomethane	<0.0038		0.0038	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Carbon disulfide	<0.0038		0.0038	0.00079	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Carbon tetrachloride	<0.0015		0.0015	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Chlorobenzene	<0.0015		0.0015	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Chloroethane	<0.0038		0.0038	0.0011	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Chloroform	<0.0015		0.0015	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Chloromethane	<0.0038		0.0038	0.0015	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
cis-1,2-Dichloroethene	<0.0015		0.0015	0.00043	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
cis-1,3-Dichloropropene	<0.0015		0.0015	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Dibromochloromethane	<0.0015		0.0015	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Ethylbenzene	<0.0015		0.0015	0.00073	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Methyl tert-butyl ether	<0.0015		0.0015	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Methylene Chloride	<0.0038		0.0038	0.0015	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Styrene	<0.0015		0.0015	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Tetrachloroethene	<0.0015		0.0015	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Toluene	<0.0015		0.0015	0.00038	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
trans-1,2-Dichloroethene	<0.0015		0.0015	0.00067	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
trans-1,3-Dichloropropene	<0.0015		0.0015	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Trichloroethene	<0.0015		0.0015	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Vinyl chloride	<0.0015		0.0015	0.00067	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1
Xylenes, Total	<0.0030		0.0030	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 13:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	12/07/19 07:50	12/13/19 13:38	1
4-Bromofluorobenzene (Surr)	106		75 - 131	12/07/19 07:50	12/13/19 13:38	1
Dibromofluoromethane	87		75 - 126	12/07/19 07:50	12/13/19 13:38	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 07:50	12/13/19 13:38	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	☼	12/16/19 08:17	12/18/19 05:18	1
1,2-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
1,3-Dichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
1,4-Dichlorobenzene	<0.19		0.19	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-1**

**Lab Sample ID: 500-174685-6**

Date Collected: 12/05/19 13:20

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 88.5

**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	0.084	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2,4,6-Trichlorophenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2,4-Dichlorophenol	<0.37		0.37	0.088	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2,4-Dimethylphenol	<0.37		0.37	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2,4-Dinitrophenol	<0.75	*	0.75	0.65	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2,4-Dinitrotoluene	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2,6-Dinitrotoluene	<0.19		0.19	0.073	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2-Chloronaphthalene	<0.19		0.19	0.041	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2-Chlorophenol	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2-Methylnaphthalene	<0.075		0.075	0.0068	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2-Methylphenol	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2-Nitroaniline	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
2-Nitrophenol	<0.37		0.37	0.087	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
3 & 4 Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
3-Nitroaniline	<0.37		0.37	0.11	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
4,6-Dinitro-2-methylphenol	<0.75		0.75	0.30	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.049	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
4-Chloro-3-methylphenol	<0.37		0.37	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
4-Chloroaniline	<0.75		0.75	0.17	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
4-Nitroaniline	<0.37		0.37	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
4-Nitrophenol	<0.75		0.75	0.35	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Acenaphthene	<0.037		0.037	0.0066	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Acenaphthylene	<0.037		0.037	0.0049	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
<b>Anthracene</b>	<b>0.020</b>	<b>J</b>	0.037	0.0062	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Benzo[a]anthracene	<0.037		0.037	0.0050	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
<b>Benzo[a]pyrene</b>	<b>0.016</b>	<b>J</b>	0.037	0.0072	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
<b>Benzo[b]fluoranthene</b>	<b>0.020</b>	<b>J</b>	0.037	0.0080	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
<b>Benzo[g,h,i]perylene</b>	<b>0.012</b>	<b>J</b>	0.037	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Benzo[k]fluoranthene	<0.037		0.037	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.038	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.055	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.068	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Butyl benzyl phthalate	<0.19		0.19	0.070	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Carbazole	<0.19		0.19	0.092	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
<b>Chrysene</b>	<b>0.033</b>	<b>J</b>	0.037	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Dibenz(a,h)anthracene	<0.037		0.037	0.0071	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Dibenzofuran	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Diethyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Dimethyl phthalate	<0.19		0.19	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Di-n-butyl phthalate	<0.19		0.19	0.056	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Di-n-octyl phthalate	<0.19		0.19	0.060	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
<b>Fluoranthene</b>	<b>0.043</b>		0.037	0.0069	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Fluorene	<0.037		0.037	0.0052	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Hexachlorobenzene	<0.075		0.075	0.0086	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Hexachlorobutadiene	<0.19		0.19	0.058	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Hexachlorocyclopentadiene	<0.75		0.75	0.21	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Hexachloroethane	<0.19		0.19	0.056	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-1**

**Lab Sample ID: 500-174685-6**

Date Collected: 12/05/19 13:20

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 88.5

**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	0.0096	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Isophorone	<0.19		0.19	0.041	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Naphthalene	<0.037		0.037	0.0057	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Nitrobenzene	<0.037		0.037	0.0092	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
N-Nitrosodi-n-propylamine	<0.075		0.075	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
N-Nitrosodiphenylamine	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Pentachlorophenol	<0.75		0.75	0.59	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
<b>Phenanthrene</b>	<b>0.078</b>		0.037	0.0052	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Phenol	<0.19		0.19	0.082	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
<b>Pyrene</b>	<b>0.040</b>		0.037	0.0073	mg/Kg	☼	12/16/19 08:17	12/18/19 05:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	73		31 - 143				12/16/19 08:17	12/18/19 05:18	1
2-Fluorobiphenyl	92		43 - 145				12/16/19 08:17	12/18/19 05:18	1
2-Fluorophenol	106		31 - 166				12/16/19 08:17	12/18/19 05:18	1
Nitrobenzene-d5	83		37 - 147				12/16/19 08:17	12/18/19 05:18	1
Phenol-d5	86		30 - 153				12/16/19 08:17	12/18/19 05:18	1
Terphenyl-d14	127		42 - 157				12/16/19 08:17	12/18/19 05:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.45</b>	<b>J</b>	1.1	0.21	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Arsenic</b>	<b>8.5</b>		0.54	0.18	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Barium</b>	<b>33</b>		0.54	0.062	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Beryllium</b>	<b>0.64</b>		0.22	0.051	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Boron</b>	<b>15</b>	<b>B</b>	2.7	0.25	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Cadmium</b>	<b>0.11</b>	<b>B</b>	0.11	0.019	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	110	18	mg/Kg	☼	12/11/19 18:00	12/13/19 09:55	10
<b>Chromium</b>	<b>14</b>		0.54	0.27	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Cobalt</b>	<b>12</b>		0.27	0.071	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Copper</b>	<b>33</b>		0.54	0.15	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	11	5.6	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Lead</b>	<b>14</b>		0.27	0.12	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Magnesium</b>	<b>23000</b>		5.4	2.7	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Manganese</b>	<b>300</b>		0.54	0.078	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Nickel</b>	<b>32</b>		0.54	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Potassium</b>	<b>2700</b>		27	9.6	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Selenium</b>	<b>0.46</b>	<b>J</b>	0.54	0.32	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Silver</b>	<b>1.6</b>		0.27	0.070	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Sodium</b>	<b>260</b>		54	8.0	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Thallium</b>	<b>0.94</b>		0.54	0.27	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Vanadium</b>	<b>18</b>		0.27	0.064	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	1
<b>Zinc</b>	<b>42</b>		1.1	0.47	mg/Kg	☼	12/11/19 18:00	12/12/19 22:45	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		12/13/19 15:19	12/16/19 18:01	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:01	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:01	1
<b>Boron</b>	<b>0.057</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:01	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-1**

**Lab Sample ID: 500-174685-6**

Date Collected: 12/05/19 13:20

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 88.5

**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		12/13/19 15:19	12/16/19 18:01	1
<b>Calcium</b>	<b>170</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:01	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:01	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:01	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:01	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:01	1
Manganese	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:01	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:01	1
<b>Potassium</b>	<b>1.7 J</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:01	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:01	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:01	1
<b>Zinc</b>	<b>0.24 J ^ B</b>		0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:01	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		12/13/19 15:19	12/16/19 19:29	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:29	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		12/16/19 09:15	12/17/19 09:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>		0.017	0.0055	mg/Kg	☼	12/13/19 14:40	12/16/19 07:20	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.45		0.45	0.22	mg/Kg	☼	12/13/19 11:16	12/13/19 15:32	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/12/19 16:18	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-2**

**Lab Sample ID: 500-174685-7**

Date Collected: 12/05/19 13:22

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.0

## 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	☼	12/07/19 07:50	12/13/19 14:04	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
<b>Acetone</b>	<b>0.037</b>		0.018	0.0080	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Toluene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00082	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 14:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	12/07/19 07:50	12/13/19 14:04	1
4-Bromofluorobenzene (Surr)	100		75 - 131	12/07/19 07:50	12/13/19 14:04	1
Dibromofluoromethane	91		75 - 126	12/07/19 07:50	12/13/19 14:04	1
Toluene-d8 (Surr)	96		75 - 124	12/07/19 07:50	12/13/19 14:04	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	☼	12/16/19 08:17	12/18/19 05:47	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-2**

**Lab Sample ID: 500-174685-7**

Date Collected: 12/05/19 13:22

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.0

**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	0.091	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2,4,6-Trichlorophenol	<0.39		0.39	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2,4-Dichlorophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2,4-Dinitrophenol	<0.80	*	0.80	0.70	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
<b>2-Methylnaphthalene</b>	<b>0.028</b>	<b>J</b>	0.080	0.0073	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
2-Nitrophenol	<0.39		0.39	0.094	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
4-Chloro-3-methylphenol	<0.39		0.39	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
4-Nitroaniline	<0.39		0.39	0.17	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
<b>Acenaphthene</b>	<b>0.036</b>	<b>J</b>	0.039	0.0071	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Anthracene	<0.039		0.039	0.0066	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Benzo[a]pyrene	<0.039		0.039	0.0077	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Benzo[b]fluoranthene	<0.039		0.039	0.0086	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
<b>Chrysene</b>	<b>0.016</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0077	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Fluoranthene	<0.039		0.039	0.0074	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Fluorene	<0.039		0.039	0.0056	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Hexachlorocyclopentadiene	<0.80		0.80	0.23	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-2**

**Lab Sample ID: 500-174685-7**

Date Collected: 12/05/19 13:22

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.0

**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	☼	12/16/19 08:17	12/18/19 05:47	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Naphthalene	<0.039		0.039	0.0061	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Nitrobenzene	<0.039		0.039	0.0099	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
<b>Phenanthrene</b>	<b>0.12</b>		0.039	0.0055	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	1
<b>Pyrene</b>	<b>0.025</b>	<b>J</b>	0.039	0.0079	mg/Kg	☼	12/16/19 08:17	12/18/19 05:47	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	69		31 - 143				12/16/19 08:17	12/18/19 05:47	1
2-Fluorobiphenyl	91		43 - 145				12/16/19 08:17	12/18/19 05:47	1
2-Fluorophenol	96		31 - 166				12/16/19 08:17	12/18/19 05:47	1
Nitrobenzene-d5	77		37 - 147				12/16/19 08:17	12/18/19 05:47	1
Phenol-d5	84		30 - 153				12/16/19 08:17	12/18/19 05:47	1
Terphenyl-d14	141		42 - 157				12/16/19 08:17	12/18/19 05:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.55</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Arsenic</b>	<b>8.1</b>		0.59	0.20	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Barium</b>	<b>44</b>		0.59	0.068	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Beryllium</b>	<b>0.91</b>		0.24	0.055	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Boron</b>	<b>23</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Cadmium</b>	<b>0.12</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Calcium</b>	<b>44000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:00	12/13/19 09:59	10
<b>Chromium</b>	<b>18</b>		0.59	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Cobalt</b>	<b>15</b>		0.30	0.078	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Copper</b>	<b>34</b>		0.59	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Iron</b>	<b>22000</b>	<b>B</b>	12	6.2	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Lead</b>	<b>16</b>		0.30	0.14	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Magnesium</b>	<b>21000</b>		5.9	2.9	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Manganese</b>	<b>340</b>		0.59	0.086	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Nickel</b>	<b>40</b>		0.59	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Potassium</b>	<b>4300</b>		30	10	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Selenium</b>	<b>0.59</b>		0.59	0.35	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Silver</b>	<b>2.2</b>		0.30	0.076	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Sodium</b>	<b>460</b>		59	8.8	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Thallium</b>	<b>0.89</b>		0.59	0.30	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Vanadium</b>	<b>23</b>		0.30	0.070	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	1
<b>Zinc</b>	<b>53</b>		1.2	0.52	mg/Kg	☼	12/11/19 18:00	12/12/19 22:49	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		12/13/19 15:19	12/16/19 18:13	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:13	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:13	1
<b>Boron</b>	<b>0.058</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:13	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-2**

**Lab Sample ID: 500-174685-7**

Date Collected: 12/05/19 13:22

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.0

**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		12/13/19 15:19	12/16/19 18:13	1
<b>Calcium</b>	<b>18</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:13	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:13	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:13	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:13	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:13	1
<b>Manganese</b>	<b>0.014</b>	<b>J</b>	0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:13	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:13	1
<b>Potassium</b>	<b>2.3</b>	<b>J</b>	2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:13	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:13	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:13	1
<b>Zinc</b>	<b>0.21</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:13	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		12/13/19 15:19	12/16/19 19:32	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:32	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		12/16/19 09:15	12/17/19 09:06	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	0.0062	mg/Kg	☼	12/13/19 14:40	12/16/19 07:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.30	mg/Kg	☼	12/13/19 11:20	12/13/19 15:32	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 16:21	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-3**

**Lab Sample ID: 500-174685-8**

Date Collected: 12/05/19 13:25

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.8

**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	☼	12/07/19 07:50	12/13/19 14:30	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00072	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
1,1-Dichloroethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
1,1-Dichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
1,2-Dichloropropane	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0012	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
<b>Acetone</b>	<b>0.042</b>		0.017	0.0073	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Carbon disulfide	<0.0042		0.0042	0.00087	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Carbon tetrachloride	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Chloroethane	<0.0042		0.0042	0.0012	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Chloroform	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Ethylbenzene	<0.0017		0.0017	0.00080	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Methylene Chloride	<0.0042		0.0042	0.0016	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Styrene	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Tetrachloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Toluene	<0.0017		0.0017	0.00042	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Trichloroethene	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Vinyl chloride	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1
Xylenes, Total	<0.0033		0.0033	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 14:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	12/07/19 07:50	12/13/19 14:30	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/07/19 07:50	12/13/19 14:30	1
Dibromofluoromethane	90		75 - 126	12/07/19 07:50	12/13/19 14:30	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/13/19 14:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.20		0.20	0.042	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-3**

**Lab Sample ID: 500-174685-8**

Date Collected: 12/05/19 13:25

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.39		0.39	0.089	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
<b>2-Methylnaphthalene</b>	<b>0.051</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
<b>Acenaphthene</b>	<b>0.021</b>	<b>J</b>	0.039	0.0070	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Acenaphthylene	<0.039		0.039	0.0052	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Benzo[k]fluoranthene	<0.039		0.039	0.012	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Carbazole	<0.20		0.20	0.098	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
<b>Chrysene</b>	<b>0.020</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Di-n-butyl phthalate	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Fluoranthene	<0.039		0.039	0.0073	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Hexachlorobenzene	<0.079		0.079	0.0091	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-3**

**Lab Sample ID: 500-174685-8**

Date Collected: 12/05/19 13:25

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.8

**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	<0.039		0.039	0.010	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Nitrobenzene	<0.039		0.039	0.0098	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
<b>Phenanthrene</b>	<b>0.14</b>		0.039	0.0054	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1
<b>Pyrene</b>	<b>0.031</b>	<b>J</b>	0.039	0.0078	mg/Kg	☼	12/16/19 08:17	12/17/19 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	64		31 - 143	12/16/19 08:17	12/17/19 23:46	1
2-Fluorobiphenyl	94		43 - 145	12/16/19 08:17	12/17/19 23:46	1
2-Fluorophenol	111		31 - 166	12/16/19 08:17	12/17/19 23:46	1
Nitrobenzene-d5	69		37 - 147	12/16/19 08:17	12/17/19 23:46	1
Phenol-d5	97		30 - 153	12/16/19 08:17	12/17/19 23:46	1
Terphenyl-d14	138		42 - 157	12/16/19 08:17	12/17/19 23:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.33</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Arsenic</b>	<b>7.9</b>		0.57	0.19	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Barium</b>	<b>38</b>		0.57	0.065	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Beryllium</b>	<b>0.71</b>		0.23	0.053	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Boron</b>	<b>18</b>	<b>B</b>	2.8	0.26	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Cadmium</b>	<b>0.16</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Calcium</b>	<b>45000</b>	<b>B</b>	110	19	mg/Kg	☼	12/11/19 18:00	12/13/19 10:03	10
<b>Chromium</b>	<b>16</b>		0.57	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Cobalt</b>	<b>14</b>		0.28	0.074	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Copper</b>	<b>34</b>		0.57	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Iron</b>	<b>20000</b>	<b>B</b>	11	5.9	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Lead</b>	<b>15</b>		0.28	0.13	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Magnesium</b>	<b>22000</b>		5.7	2.8	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Manganese</b>	<b>340</b>		0.57	0.082	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Nickel</b>	<b>38</b>		0.57	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Potassium</b>	<b>3600</b>		28	10	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
Selenium	<0.57		0.57	0.33	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Silver</b>	<b>1.9</b>		0.28	0.073	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Sodium</b>	<b>200</b>		57	8.4	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Thallium</b>	<b>0.70</b>		0.57	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Vanadium</b>	<b>19</b>		0.28	0.067	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	1
<b>Zinc</b>	<b>65</b>		1.1	0.50	mg/Kg	☼	12/11/19 18:00	12/12/19 22:53	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		12/13/19 15:19	12/16/19 18:17	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:17	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:17	1
<b>Boron</b>	<b>0.064</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:17	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-3**

**Lab Sample ID: 500-174685-8**

Date Collected: 12/05/19 13:25

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.8

## 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		12/13/19 15:19	12/16/19 18:17	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:17	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:17	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:17	1
<b>Iron</b>	<b>0.22</b>	<b>J</b>	0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:17	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:17	1
<b>Manganese</b>	<b>0.019</b>	<b>J</b>	0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:17	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:17	1
<b>Potassium</b>	<b>1.9</b>	<b>J</b>	2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:17	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:17	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:17	1
<b>Zinc</b>	<b>0.10</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:17	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		12/13/19 15:19	12/16/19 19:34	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:34	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		12/16/19 09:15	12/17/19 09:07	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J</b>	0.019	0.0065	mg/Kg	☼	12/13/19 14:40	12/16/19 07:28	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	12/13/19 11:23	12/13/19 15:33	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/12/19 16:26	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-4**

**Lab Sample ID: 500-174685-9**

**Date Collected: 12/05/19 13:30**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 80.8**

## 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	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
<b>Acetone</b>	<b>0.012</b>	<b>J</b>	0.018	0.0077	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	12/07/19 07:50	12/13/19 14:56	1
4-Bromofluorobenzene (Surr)	104		75 - 131	12/07/19 07:50	12/13/19 14:56	1
Dibromofluoromethane	91		75 - 126	12/07/19 07:50	12/13/19 14:56	1
Toluene-d8 (Surr)	93		75 - 124	12/07/19 07:50	12/13/19 14:56	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	☼	12/16/19 08:17	12/19/19 02:53	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-4**

**Lab Sample ID: 500-174685-9**

Date Collected: 12/05/19 13:30

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2,4-Dinitrophenol	<0.81	*	0.81	0.71	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
<b>2-Methylnaphthalene</b>	<b>0.049</b>	<b>J</b>	0.081	0.0074	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
<b>Acenaphthene</b>	<b>0.034</b>	<b>J</b>	0.040	0.0072	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.060	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
<b>Chrysene</b>	<b>0.027</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
<b>Fluoranthene</b>	<b>0.031</b>	<b>J</b>	0.040	0.0075	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Hexachlorobenzene	<0.081		0.081	0.0093	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Hexachlorocyclopentadiene	<0.81		0.81	0.23	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-4**

**Lab Sample ID: 500-174685-9**

Date Collected: 12/05/19 13:30

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.8

**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	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
<b>Phenanthrene</b>	<b>0.13</b>		0.040	0.0056	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
<b>Pyrene</b>	<b>0.025</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	12/16/19 08:17	12/19/19 02:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	53		31 - 143				12/16/19 08:17	12/19/19 02:53	1
2-Fluorobiphenyl	91		43 - 145				12/16/19 08:17	12/19/19 02:53	1
2-Fluorophenol	96		31 - 166				12/16/19 08:17	12/19/19 02:53	1
Nitrobenzene-d5	62		37 - 147				12/16/19 08:17	12/19/19 02:53	1
Phenol-d5	73		30 - 153				12/16/19 08:17	12/19/19 02:53	1
Terphenyl-d14	106		42 - 157				12/16/19 08:17	12/19/19 02:53	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>	1.2	0.24	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Arsenic</b>	<b>7.5</b>		0.61	0.21	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Barium</b>	<b>46</b>		0.61	0.069	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Beryllium</b>	<b>0.74</b>		0.24	0.057	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Boron</b>	<b>20</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Cadmium</b>	<b>0.12</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Calcium</b>	<b>59000</b>	<b>B</b>	120	21	mg/Kg	☼	12/11/19 18:00	12/13/19 10:07	10
<b>Chromium</b>	<b>17</b>		0.61	0.30	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Cobalt</b>	<b>14</b>		0.30	0.080	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Copper</b>	<b>28</b>		0.61	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Iron</b>	<b>22000</b>	<b>B ^</b>	12	6.3	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Lead</b>	<b>14</b>		0.30	0.14	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Magnesium</b>	<b>25000</b>		6.1	3.0	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Manganese</b>	<b>370</b>		0.61	0.088	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Nickel</b>	<b>36</b>		0.61	0.18	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Potassium</b>	<b>3800</b>		30	11	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Selenium</b>	<b>0.66</b>		0.61	0.36	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Silver</b>	<b>2.1</b>		0.30	0.078	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Sodium</b>	<b>260</b>		61	9.0	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Thallium</b>	<b>0.67</b>		0.61	0.30	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Vanadium</b>	<b>21</b>		0.30	0.072	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	1
<b>Zinc</b>	<b>54</b>		1.2	0.53	mg/Kg	☼	12/11/19 18:00	12/12/19 23:09	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		12/13/19 15:19	12/16/19 18:22	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:22	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:22	1
<b>Boron</b>	<b>0.086</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:22	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B38-4**

**Lab Sample ID: 500-174685-9**

Date Collected: 12/05/19 13:30

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.8

## 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		12/13/19 15:19	12/16/19 18:22	1
<b>Calcium</b>	<b>14</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:22	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:22	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:22	1
<b>Iron</b>	<b>0.74</b>		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:22	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:22	1
<b>Manganese</b>	<b>0.019</b>	<b>J</b>	0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:22	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:22	1
<b>Potassium</b>	<b>2.6</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:22	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:22	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:22	1
<b>Zinc</b>	<b>0.022</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		12/13/19 15:19	12/16/19 19:41	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:41	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		12/16/19 09:15	12/17/19 09:09	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.014</b>	<b>J</b>	0.019	0.0064	mg/Kg	☼	12/13/19 14:40	12/16/19 07:30	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.24	mg/Kg	☼	12/13/19 11:27	12/13/19 15:33	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 16:29	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-1**

**Lab Sample ID: 500-174685-12**

Date Collected: 12/05/19 13:33

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 85.6

**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	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
1,1-Dichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
1,2-Dichloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
2-Butanone (MEK)	<0.0042		0.0042	0.0019	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
2-Hexanone	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
4-Methyl-2-pentanone (MIBK)	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Bromodichloromethane	<0.0017		0.0017	0.00034	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Bromoform	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Bromomethane	<0.0042		0.0042	0.0016	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Carbon disulfide	<0.0042		0.0042	0.00088	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Chlorobenzene	<0.0017		0.0017	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Chloroethane	<0.0042		0.0042	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Chloromethane	<0.0042		0.0042	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Dibromochloromethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Methylene Chloride	<0.0042		0.0042	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/07/19 07:50	12/13/19 16:14	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/07/19 07:50	12/13/19 16:14	1
Dibromofluoromethane	90		75 - 126	12/07/19 07:50	12/13/19 16:14	1
Toluene-d8 (Surr)	96		75 - 124	12/07/19 07:50	12/13/19 16:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		0.19	0.042	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
1,2-Dichlorobenzene	<0.19		0.19	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
1,3-Dichlorobenzene	<0.19		0.19	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
1,4-Dichlorobenzene	<0.19		0.19	0.050	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-1**

**Lab Sample ID: 500-174685-12**

Date Collected: 12/05/19 13:33

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 85.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.088	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2,4-Dichlorophenol	<0.38		0.38	0.092	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2,4-Dimethylphenol	<0.38		0.38	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2,4-Dinitrophenol	<0.78	*	0.78	0.68	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2,4-Dinitrotoluene	<0.19		0.19	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2,6-Dinitrotoluene	<0.19		0.19	0.076	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2-Chloronaphthalene	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2-Chlorophenol	<0.19		0.19	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>2-Methylnaphthalene</b>	<b>0.042</b>	<b>J</b>	0.078	0.0071	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2-Methylphenol	<0.19		0.19	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2-Nitroaniline	<0.19		0.19	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
2-Nitrophenol	<0.38		0.38	0.091	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
3 & 4 Methylphenol	<0.19		0.19	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.054	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
4,6-Dinitro-2-methylphenol	<0.78		0.78	0.31	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.051	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
4-Chloroaniline	<0.78		0.78	0.18	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
4-Nitrophenol	<0.78		0.78	0.37	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Acenaphthene	<0.038		0.038	0.0070	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Acenaphthylene	<0.038		0.038	0.0051	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Anthracene</b>	<b>0.022</b>	<b>J</b>	0.038	0.0065	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Benzo[a]anthracene</b>	<b>0.065</b>		0.038	0.0052	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Benzo[a]pyrene</b>	<b>0.061</b>		0.038	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Benzo[b]fluoranthene</b>	<b>0.10</b>		0.038	0.0084	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Benzo[g,h,i]perylene	<0.038		0.038	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Benzo[k]fluoranthene</b>	<b>0.035</b>	<b>J</b>	0.038	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.040	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Bis(2-chloroethyl)ether	<0.19		0.19	0.058	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Bis(2-ethylhexyl) phthalate	<0.19		0.19	0.071	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Butyl benzyl phthalate	<0.19		0.19	0.074	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Carbazole	<0.19		0.19	0.097	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Chrysene</b>	<b>0.094</b>		0.038	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Dibenz(a,h)anthracene	<0.038		0.038	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Dibenzofuran	<0.19		0.19	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Diethyl phthalate	<0.19		0.19	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Dimethyl phthalate	<0.19		0.19	0.051	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Di-n-butyl phthalate	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Di-n-octyl phthalate	<0.19		0.19	0.063	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Fluoranthene</b>	<b>0.18</b>		0.038	0.0072	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Fluorene	<0.038		0.038	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Hexachlorobenzene	<0.078		0.078	0.0090	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Hexachlorobutadiene	<0.19		0.19	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Hexachlorocyclopentadiene	<0.78		0.78	0.22	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Hexachloroethane	<0.19		0.19	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-1**

**Lab Sample ID: 500-174685-12**

Date Collected: 12/05/19 13:33

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 85.6

**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>0.025</b>	<b>J</b>	0.038	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Naphthalene	<0.038		0.038	0.0060	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Nitrobenzene	<0.038		0.038	0.0097	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
N-Nitrosodi-n-propylamine	<0.078		0.078	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
N-Nitrosodiphenylamine	<0.19		0.19	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Pentachlorophenol	<0.78		0.78	0.62	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Phenanthrene</b>	<b>0.19</b>		0.038	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
Phenol	<0.19		0.19	0.086	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	1
<b>Pyrene</b>	<b>0.20</b>		0.038	0.0077	mg/Kg	☼	12/16/19 08:17	12/18/19 00:46	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	74		31 - 143				12/16/19 08:17	12/18/19 00:46	1
2-Fluorobiphenyl	92		43 - 145				12/16/19 08:17	12/18/19 00:46	1
2-Fluorophenol	112		31 - 166				12/16/19 08:17	12/18/19 00:46	1
Nitrobenzene-d5	67		37 - 147				12/16/19 08:17	12/18/19 00:46	1
Phenol-d5	97		30 - 153				12/16/19 08:17	12/18/19 00:46	1
Terphenyl-d14	139		42 - 157				12/16/19 08:17	12/18/19 00:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.55</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Arsenic</b>	<b>8.7</b>		0.56	0.19	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Barium</b>	<b>42</b>		0.56	0.064	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Beryllium</b>	<b>0.82</b>		0.22	0.052	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Boron</b>	<b>20</b>	<b>B</b>	2.8	0.26	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Cadmium</b>	<b>0.11</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Calcium</b>	<b>49000</b>	<b>B</b>	110	19	mg/Kg	☼	12/11/19 18:00	12/13/19 10:20	10
<b>Chromium</b>	<b>17</b>		0.56	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Cobalt</b>	<b>15</b>		0.28	0.073	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Copper</b>	<b>36</b>		0.56	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Iron</b>	<b>22000</b>	<b>B ^</b>	11	5.8	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Lead</b>	<b>19</b>		0.28	0.13	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Magnesium</b>	<b>23000</b>		5.6	2.8	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Manganese</b>	<b>350</b>		0.56	0.081	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Nickel</b>	<b>39</b>		0.56	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Potassium</b>	<b>3900</b>		28	9.9	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Selenium</b>	<b>0.64</b>		0.56	0.33	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Silver</b>	<b>2.0</b>		0.28	0.072	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Sodium</b>	<b>380</b>		56	8.3	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Thallium</b>	<b>0.99</b>		0.56	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Vanadium</b>	<b>21</b>		0.28	0.066	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	1
<b>Zinc</b>	<b>52</b>		1.1	0.49	mg/Kg	☼	12/11/19 18:00	12/12/19 23:22	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		12/13/19 15:19	12/16/19 18:34	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:34	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:34	1
<b>Boron</b>	<b>0.078</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-1**

**Lab Sample ID: 500-174685-12**

Date Collected: 12/05/19 13:33

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 85.6

**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		12/13/19 15:19	12/16/19 18:34	1
<b>Calcium</b>	<b>48</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:34	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:34	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:34	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:34	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:34	1
<b>Manganese</b>	<b>0.044</b>		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:34	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:34	1
<b>Potassium</b>	<b>3.4</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:34	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:34	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:34	1
<b>Zinc</b>	<b>0.039</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:34	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		12/13/19 15:19	12/16/19 19:49	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:49	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		12/16/19 09:15	12/17/19 09:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.073</b>		0.018	0.0059	mg/Kg	☼	12/13/19 14:40	12/16/19 07:43	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.46		0.46	0.23	mg/Kg	☼	12/13/19 11:37	12/13/19 15:36	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/12/19 16:37	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-2**

**Lab Sample ID: 500-174685-13**

Date Collected: 12/05/19 13:35

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.5

## 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	☼	12/07/19 07:50	12/13/19 16:39	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
1,2-Dichloropropane	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00064	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Acetone	<0.018		0.018	0.0080	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Bromodichloromethane	<0.0018		0.0018	0.00037	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Bromoform	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Carbon disulfide	<0.0046		0.0046	0.00095	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Carbon tetrachloride	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Chlorobenzene	<0.0018		0.0018	0.00067	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Chloroform	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Chloromethane	<0.0046		0.0046	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Ethylbenzene	<0.0018		0.0018	0.00087	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Styrene	<0.0018		0.0018	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Tetrachloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Toluene	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00081	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00064	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Vinyl chloride	<0.0018		0.0018	0.00081	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1
Xylenes, Total	<0.0037		0.0037	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/07/19 07:50	12/13/19 16:39	1
4-Bromofluorobenzene (Surr)	103		75 - 131	12/07/19 07:50	12/13/19 16:39	1
Dibromofluoromethane	90		75 - 126	12/07/19 07:50	12/13/19 16:39	1
Toluene-d8 (Surr)	96		75 - 124	12/07/19 07:50	12/13/19 16:39	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	☼	12/16/19 08:17	12/18/19 01:15	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-2**

**Lab Sample ID: 500-174685-13**

Date Collected: 12/05/19 13:35

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.5

**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	☼	12/16/19 08:17	12/18/19 01:15	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2,4-Dinitrophenol	<0.79	*	0.79	0.69	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2-Chlorophenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
<b>2-Methylnaphthalene</b>	<b>0.066</b>	<b>J</b>	0.079	0.0072	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2-Nitroaniline	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
<b>Anthracene</b>	<b>0.11</b>		0.039	0.0065	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Benzo[a]anthracene	<0.039		0.039	0.0053	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Benzo[a]pyrene	<0.039		0.039	0.0076	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.058	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
<b>Chrysene</b>	<b>0.027</b>	<b>J</b>	0.039	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Hexachlorocyclopentadiene	<0.79		0.79	0.22	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-2**

**Lab Sample ID: 500-174685-13**

Date Collected: 12/05/19 13:35

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.5

**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	☼	12/16/19 08:17	12/18/19 01:15	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Phenanthrene	<0.039		0.039	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1
<b>Pyrene</b>	<b>0.027</b>	<b>J</b>	0.039	0.0078	mg/Kg	☼	12/16/19 08:17	12/18/19 01:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	63		31 - 143	12/16/19 08:17	12/18/19 01:15	1
2-Fluorobiphenyl	88		43 - 145	12/16/19 08:17	12/18/19 01:15	1
2-Fluorophenol	109		31 - 166	12/16/19 08:17	12/18/19 01:15	1
Nitrobenzene-d5	65		37 - 147	12/16/19 08:17	12/18/19 01:15	1
Phenol-d5	94		30 - 153	12/16/19 08:17	12/18/19 01:15	1
Terphenyl-d14	144		42 - 157	12/16/19 08:17	12/18/19 01:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.41</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Arsenic</b>	<b>7.7</b>		0.58	0.20	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Barium</b>	<b>41</b>		0.58	0.066	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Beryllium</b>	<b>0.73</b>		0.23	0.054	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Boron</b>	<b>19</b>	<b>B</b>	2.9	0.27	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Cadmium</b>	<b>0.12</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Calcium</b>	<b>59000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:00	12/13/19 10:33	10
<b>Chromium</b>	<b>16</b>		0.58	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Cobalt</b>	<b>14</b>		0.29	0.076	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Copper</b>	<b>31</b>		0.58	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Iron</b>	<b>20000</b>	<b>B ^</b>	12	6.0	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Lead</b>	<b>15</b>		0.29	0.13	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Magnesium</b>	<b>26000</b>		5.8	2.9	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Manganese</b>	<b>380</b>		0.58	0.084	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Nickel</b>	<b>36</b>		0.58	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Potassium</b>	<b>3600</b>		29	10	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Selenium</b>	<b>0.74</b>		0.58	0.34	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Silver</b>	<b>2.0</b>		0.29	0.075	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Sodium</b>	<b>350</b>		58	8.6	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Thallium</b>	<b>0.67</b>		0.58	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Vanadium</b>	<b>20</b>		0.29	0.069	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	1
<b>Zinc</b>	<b>51</b>		1.2	0.51	mg/Kg	☼	12/11/19 18:00	12/12/19 23:26	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		12/13/19 15:19	12/16/19 18:38	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:38	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:38	1
<b>Boron</b>	<b>0.062</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-2**

**Lab Sample ID: 500-174685-13**

Date Collected: 12/05/19 13:35

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.5

## 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		12/13/19 15:19	12/16/19 18:38	1
<b>Calcium</b>	<b>18</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:38	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:38	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:38	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:38	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:38	1
<b>Manganese</b>	<b>0.028</b>		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:38	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:38	1
<b>Potassium</b>	<b>1.9 J</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:38	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:38	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:38	1
<b>Zinc</b>	<b>0.020 J ^ B</b>		0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:38	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		12/13/19 15:19	12/16/19 19:51	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:51	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		12/16/19 09:15	12/17/19 09:23	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.015 J</b>		0.019	0.0063	mg/Kg	☼	12/13/19 14:40	12/16/19 07:45	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.47		0.47	0.24	mg/Kg	☼	12/13/19 11:41	12/13/19 15:36	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 16:40	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-3**

**Lab Sample ID: 500-174685-14**

Date Collected: 12/05/19 13:40

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

## 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	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
<b>Acetone</b>	<b>0.014</b>	<b>J</b>	0.017	0.0074	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 07:50	12/13/19 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	12/07/19 07:50	12/13/19 17:05	1
4-Bromofluorobenzene (Surr)	102		75 - 131	12/07/19 07:50	12/13/19 17:05	1
Dibromofluoromethane	91		75 - 126	12/07/19 07:50	12/13/19 17:05	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/13/19 17:05	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	☼	12/16/19 08:17	12/18/19 01:45	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-3**

**Lab Sample ID: 500-174685-14**

Date Collected: 12/05/19 13:40

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

**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	0.092	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2,4-Dinitrophenol	<0.82	*	0.82	0.71	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
<b>2-Methylnaphthalene</b>	<b>0.034</b>	<b>J</b>	0.082	0.0074	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
4-Nitrophenol	<0.82		0.82	0.38	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
<b>Acenaphthene</b>	<b>0.013</b>	<b>J</b>	0.040	0.0073	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
<b>Fluorene</b>	<b>0.0059</b>	<b>J</b>	0.040	0.0057	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1

Euofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-3**

**Lab Sample ID: 500-174685-14**

Date Collected: 12/05/19 13:40

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

**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	☼	12/16/19 08:17	12/18/19 01:45	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
<b>Naphthalene</b>	<b>0.019</b>	<b>J</b>	0.040	0.0062	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.049	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
<b>Phenanthrene</b>	<b>0.078</b>		0.040	0.0056	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	1
<b>Pyrene</b>	<b>0.017</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	12/16/19 08:17	12/18/19 01:45	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	53		31 - 143				12/16/19 08:17	12/18/19 01:45	1
2-Fluorobiphenyl	82		43 - 145				12/16/19 08:17	12/18/19 01:45	1
2-Fluorophenol	108		31 - 166				12/16/19 08:17	12/18/19 01:45	1
Nitrobenzene-d5	65		37 - 147				12/16/19 08:17	12/18/19 01:45	1
Phenol-d5	84		30 - 153				12/16/19 08:17	12/18/19 01:45	1
Terphenyl-d14	120		42 - 157				12/16/19 08:17	12/18/19 01:45	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>	1.2	0.23	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Arsenic</b>	<b>8.1</b>		0.60	0.21	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Barium</b>	<b>48</b>		0.60	0.069	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Beryllium</b>	<b>0.77</b>		0.24	0.056	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Boron</b>	<b>23</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Calcium</b>	<b>64000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:00	12/13/19 10:38	10
<b>Chromium</b>	<b>17</b>		0.60	0.30	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Cobalt</b>	<b>14</b>		0.30	0.079	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Copper</b>	<b>30</b>		0.60	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Iron</b>	<b>21000</b>	<b>B ^</b>	12	6.3	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Lead</b>	<b>14</b>		0.30	0.14	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Magnesium</b>	<b>26000</b>		6.0	3.0	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Manganese</b>	<b>370</b>		0.60	0.087	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Nickel</b>	<b>36</b>		0.60	0.18	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Potassium</b>	<b>4100</b>		30	11	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Selenium</b>	<b>0.36</b>	<b>J</b>	0.60	0.35	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Silver</b>	<b>2.2</b>		0.30	0.078	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Sodium</b>	<b>300</b>		60	8.9	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Thallium</b>	<b>0.79</b>		0.60	0.30	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Vanadium</b>	<b>23</b>		0.30	0.071	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	1
<b>Zinc</b>	<b>59</b>		1.2	0.53	mg/Kg	☼	12/11/19 18:00	12/12/19 23:30	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		12/13/19 15:19	12/16/19 18:42	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:42	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:42	1
<b>Boron</b>	<b>0.079</b>	<b>J</b>	0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:42	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-3**

**Lab Sample ID: 500-174685-14**

Date Collected: 12/05/19 13:40

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

## 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		12/13/19 15:19	12/16/19 18:42	1
<b>Calcium</b>	<b>17</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:42	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:42	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:42	1
Iron	<0.40		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:42	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:42	1
<b>Manganese</b>	<b>0.021</b>	<b>J</b>	0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:42	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:42	1
<b>Potassium</b>	<b>1.8</b>	<b>J</b>	2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:42	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:42	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:42	1
<b>Zinc</b>	<b>0.070</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:42	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		12/13/19 15:19	12/16/19 19:54	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:54	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		12/16/19 09:15	12/17/19 09:25	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.016</b>	<b>J</b>	0.018	0.0061	mg/Kg	☼	12/13/19 14:40	12/16/19 07:47	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.43		0.43	0.22	mg/Kg	☼	12/13/19 11:44	12/13/19 15:37	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 16:42	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-4**

**Lab Sample ID: 500-174685-15**

**Date Collected: 12/05/19 13:45**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 81.4**

**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	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
<b>Acetone</b>	<b>0.011</b>	<b>J</b>	0.017	0.0076	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	12/07/19 07:50	12/13/19 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	12/07/19 07:50	12/13/19 17:31	1
4-Bromofluorobenzene (Surr)	101		75 - 131	12/07/19 07:50	12/13/19 17:31	1
Dibromofluoromethane	91		75 - 126	12/07/19 07:50	12/13/19 17:31	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/13/19 17:31	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	☼	12/16/19 08:17	12/18/19 02:15	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-4**

**Lab Sample ID: 500-174685-15**

Date Collected: 12/05/19 13:45

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2,4-Dinitrophenol	<0.82	*	0.82	0.71	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
<b>2-Methylnaphthalene</b>	<b>0.031</b>	<b>J</b>	0.082	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Bis(2-chloroethyl)ether	<0.20		0.20	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
<b>Fluorene</b>	<b>0.0063</b>	<b>J</b>	0.040	0.0057	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-4**

**Lab Sample ID: 500-174685-15**

Date Collected: 12/05/19 13:45

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.4

**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	☼	12/16/19 08:17	12/18/19 02:15	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
<b>Phenanthrene</b>	<b>0.071</b>		0.040	0.0056	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	1
<b>Pyrene</b>	<b>0.018</b>	<b>J</b>	0.040	0.0081	mg/Kg	☼	12/16/19 08:17	12/18/19 02:15	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	52		31 - 143				12/16/19 08:17	12/18/19 02:15	1
2-Fluorobiphenyl	77		43 - 145				12/16/19 08:17	12/18/19 02:15	1
2-Fluorophenol	100		31 - 166				12/16/19 08:17	12/18/19 02:15	1
Nitrobenzene-d5	59		37 - 147				12/16/19 08:17	12/18/19 02:15	1
Phenol-d5	86		30 - 153				12/16/19 08:17	12/18/19 02:15	1
Terphenyl-d14	124		42 - 157				12/16/19 08:17	12/18/19 02:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.60</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Arsenic</b>	<b>7.3</b>		0.57	0.20	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Barium</b>	<b>47</b>		0.57	0.065	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Beryllium</b>	<b>0.86</b>		0.23	0.053	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Boron</b>	<b>25</b>	<b>B</b>	2.9	0.27	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Cadmium</b>	<b>0.19</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Calcium</b>	<b>64000</b>	<b>B</b>	110	19	mg/Kg	☼	12/11/19 18:00	12/13/19 10:42	10
<b>Chromium</b>	<b>18</b>		0.57	0.28	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Cobalt</b>	<b>14</b>		0.29	0.075	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Copper</b>	<b>29</b>		0.57	0.16	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Iron</b>	<b>21000</b>	<b>B ^</b>	11	5.9	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Lead</b>	<b>13</b>		0.29	0.13	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Magnesium</b>	<b>25000</b>		5.7	2.8	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Manganese</b>	<b>360</b>		0.57	0.083	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Nickel</b>	<b>35</b>		0.57	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Potassium</b>	<b>4500</b>		29	10	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Selenium</b>	<b>0.65</b>		0.57	0.34	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Silver</b>	<b>2.4</b>		0.29	0.074	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Sodium</b>	<b>270</b>		57	8.5	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Thallium</b>	<b>0.69</b>		0.57	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Vanadium</b>	<b>24</b>		0.29	0.067	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	1
<b>Zinc</b>	<b>70</b>		1.1	0.50	mg/Kg	☼	12/11/19 18:00	12/12/19 23:34	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		12/13/19 15:19	12/16/19 18:46	1
Barium	<0.50		0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:46	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:46	1
<b>Boron</b>	<b>0.11</b>		0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-4**

**Lab Sample ID: 500-174685-15**

Date Collected: 12/05/19 13:45

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.4

## 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		12/13/19 15:19	12/16/19 18:46	1
<b>Calcium</b>	<b>13</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:46	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:46	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:46	1
<b>Iron</b>	<b>1.5</b>		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:46	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:46	1
<b>Manganese</b>	<b>0.024</b>	<b>J</b>	0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:46	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:46	1
<b>Potassium</b>	<b>3.5</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:46	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:46	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:46	1
<b>Zinc</b>	<b>0.026</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:46	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		12/13/19 15:19	12/16/19 19:56	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:56	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		12/16/19 09:15	12/17/19 09:26	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.014</b>	<b>J</b>	0.019	0.0064	mg/Kg	☼	12/13/19 14:40	12/16/19 07:54	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.44		0.44	0.22	mg/Kg	☼	12/13/19 11:48	12/13/19 15:37	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 16:45	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-4 Dup**

**Lab Sample ID: 500-174685-16**

**Date Collected: 12/05/19 13:47**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 80.5**

## 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	☼	12/07/19 07:50	12/13/19 17:57	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
<b>Acetone</b>	<b>0.049</b>		0.018	0.0077	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Carbon tetrachloride	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Chlorobenzene	<0.0018		0.0018	0.00066	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Methylene Chloride	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Tetrachloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Vinyl chloride	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1
Xylenes, Total	<0.0036		0.0036	0.00057	mg/Kg	☼	12/07/19 07:50	12/13/19 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	12/07/19 07:50	12/13/19 17:57	1
4-Bromofluorobenzene (Surr)	102		75 - 131	12/07/19 07:50	12/13/19 17:57	1
Dibromofluoromethane	90		75 - 126	12/07/19 07:50	12/13/19 17:57	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/13/19 17:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.21		0.21	0.044	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
1,4-Dichlorobenzene	<0.21		0.21	0.052	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-4 Dup**

**Lab Sample ID: 500-174685-16**

Date Collected: 12/05/19 13:47

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

**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	☼	12/16/19 08:17	12/18/19 02:45	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2,4-Dimethylphenol	<0.41		0.41	0.15	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2,4-Dinitrophenol	<0.82	*	0.82	0.72	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2,6-Dinitrotoluene	<0.21		0.21	0.080	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
<b>2-Methylnaphthalene</b>	<b>0.031</b>	<b>J</b>	0.082	0.0075	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2-Methylphenol	<0.21		0.21	0.065	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
2-Nitrophenol	<0.41		0.41	0.096	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Acenaphthene	<0.041		0.041	0.0073	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Bis(2-chloroethyl)ether	<0.21		0.21	0.061	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.11</b>	<b>J</b>	0.21	0.075	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
<b>Chrysene</b>	<b>0.020</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Dimethyl phthalate	<0.21		0.21	0.053	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Fluorene	<0.041		0.041	0.0057	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Hexachlorobenzene	<0.082		0.082	0.0095	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Hexachlorocyclopentadiene	<0.82		0.82	0.23	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-4 Dup**

**Lab Sample ID: 500-174685-16**

Date Collected: 12/05/19 13:47

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

**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	☼	12/16/19 08:17	12/18/19 02:45	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
<b>Phenanthrene</b>	<b>0.081</b>		0.041	0.0057	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
<b>Pyrene</b>	<b>0.022</b>	<b>J</b>	0.041	0.0081	mg/Kg	☼	12/16/19 08:17	12/18/19 02:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	50		31 - 143				12/16/19 08:17	12/18/19 02:45	1
2-Fluorobiphenyl	87		43 - 145				12/16/19 08:17	12/18/19 02:45	1
2-Fluorophenol	118		31 - 166				12/16/19 08:17	12/18/19 02:45	1
Nitrobenzene-d5	65		37 - 147				12/16/19 08:17	12/18/19 02:45	1
Phenol-d5	106		30 - 153				12/16/19 08:17	12/18/19 02:45	1
Terphenyl-d14	133		42 - 157				12/16/19 08:17	12/18/19 02:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.46</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Arsenic</b>	<b>7.4</b>		0.61	0.21	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Barium</b>	<b>47</b>		0.61	0.070	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Beryllium</b>	<b>0.82</b>		0.25	0.057	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Boron</b>	<b>22</b>	<b>B</b>	3.1	0.29	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Cadmium</b>	<b>0.16</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Calcium</b>	<b>65000</b>	<b>B</b>	120	21	mg/Kg	☼	12/11/19 18:00	12/13/19 10:46	10
<b>Chromium</b>	<b>17</b>		0.61	0.30	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Cobalt</b>	<b>14</b>		0.31	0.080	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Copper</b>	<b>28</b>		0.61	0.17	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Iron</b>	<b>21000</b>	<b>B ^</b>	12	6.4	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Lead</b>	<b>14</b>		0.31	0.14	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Magnesium</b>	<b>24000</b>		6.1	3.0	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Manganese</b>	<b>350</b>		0.61	0.089	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Nickel</b>	<b>36</b>		0.61	0.18	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Potassium</b>	<b>4000</b>		31	11	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Selenium</b>	<b>0.58</b>	<b>J</b>	0.61	0.36	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Silver</b>	<b>2.2</b>		0.31	0.079	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Sodium</b>	<b>260</b>		61	9.1	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Thallium</b>	<b>0.52</b>	<b>J</b>	0.61	0.31	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Vanadium</b>	<b>22</b>		0.31	0.072	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	1
<b>Zinc</b>	<b>56</b>		1.2	0.54	mg/Kg	☼	12/11/19 18:00	12/12/19 23:38	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		12/13/19 15:19	12/16/19 18:50	1
<b>Barium</b>	<b>0.052</b>	<b>J</b>	0.50	0.050	mg/L		12/13/19 15:19	12/16/19 18:50	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/13/19 15:19	12/16/19 18:50	1
<b>Boron</b>	<b>0.11</b>		0.10	0.050	mg/L		12/13/19 15:19	12/16/19 18:50	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

**Client Sample ID: 2615V2-1-B35-4 Dup**

**Lab Sample ID: 500-174685-16**

Date Collected: 12/05/19 13:47

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

## 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		12/13/19 15:19	12/16/19 18:50	1
<b>Calcium</b>	<b>13</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:50	1
Chromium	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:50	1
Cobalt	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:50	1
<b>Iron</b>	<b>1.9</b>		0.40	0.20	mg/L		12/13/19 15:19	12/16/19 18:50	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/13/19 15:19	12/16/19 18:50	1
<b>Manganese</b>	<b>0.026</b>		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:50	1
Nickel	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:50	1
<b>Potassium</b>	<b>3.9</b>		2.5	0.50	mg/L		12/13/19 15:19	12/16/19 18:50	1
Selenium	<0.050		0.050	0.020	mg/L		12/13/19 15:19	12/16/19 18:50	1
Silver	<0.025		0.025	0.010	mg/L		12/13/19 15:19	12/16/19 18:50	1
<b>Zinc</b>	<b>0.040</b>	<b>J ^ B</b>	0.50	0.020	mg/L		12/13/19 15:19	12/16/19 18:50	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		12/13/19 15:19	12/16/19 19:59	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/13/19 15:19	12/16/19 19:59	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		12/16/19 09:15	12/17/19 09:28	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.014</b>	<b>J</b>	0.020	0.0065	mg/Kg	☼	12/13/19 14:40	12/16/19 07:56	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.60		0.60	0.30	mg/Kg	☼	12/13/19 11:51	12/13/19 15:38	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/12/19 16:48	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174685-1

## Qualifiers

### GC/MS 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.

### GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
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.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
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
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 - AE7-028

Job ID: 500-174685-1

## 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

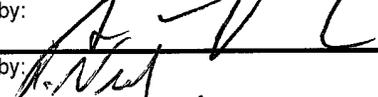
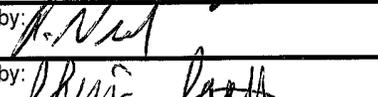
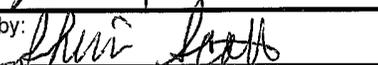
<b>Client Contact</b>  Andrews Engineering, Inc 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com		<b>Laboratory</b>	Project Name: <u>AC7-28A</u>	COC No.: <u>3</u> of <u>4</u>
		Lab: <b>Test America - Chicago</b> Address: <b>2417 Bond Street</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:184-006/28A</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>M. Dimatteo</u>	Lab Job No.: <u>500-174685</u> Sample Temp: <u>19, 25, 39, 2.1</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
1	2615V2-1-B39-1	12-5	1300	S	X	X					X	X	X	X	X					
2	2615V2-1-B39-1DUP		1303																	
3	2615V2-1-B39-2		1305																	
4	2615V2-1-B39-3		1310																	
5	2615V2-1-B39-4		1315																	
6	2615V2-1-B38-1		1320																	
7	2615V2-1-B38-2		1322																	
8	2615V2-1-B38-3		1325																	
9	2615V2-1-B38-4		1330																	
<del>2615V2-1-B</del>																				
10	2615V2-1-B24-1		1020																	
11	2615V2-1-B24-2		1025																	

Relinquished by: 	Date/Time 12/5/19 1700	Received by: 	Date/Time 12/5/19 5:02pm
Relinquished by: 	Date/Time 12/6/19 10:15	Received by: 	Date/Time 12/6/19 10:15
Relinquished by: 	Date/Time 12/6/19 11:15	Received by: 	Date/Time 12/6/19 11:15



# CHAIN OF CUSTODY RECORD

<b>Client Contact</b>	<b>Laboratory</b>	Project Name: <u>AE7-2BA</u>	COC No.: <u>4</u> of <u>4</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:184-006/2BA</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	Lab Job No.: <u>500-174685</u> Sample Temp: <u>19, 25, 3, 9, 21</u>
<b>Special Instructions:</b> 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.		<b>Analyses</b>	<b>Matrix Key:</b> 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	ANALYSES												Comments	
					VOCs	SVOCs	BETX & MTBE	PNAS	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization		
12	2615V2-1-1335-1	12-5	1333	S	X	X						X	X	X	X	X		
13	2615V2-1-1335-2		1335															
14	2615V2-1-1335-3		1340															
15	2615V2-1-1335-4		1345															
16	2615V2-1-1335-4DP		1347															
	<del>2615V2-1-13</del>																	
	<del>2615V2-1-13</del>																	
	<del>2615V2-1-13</del>																	
	<del>2615V2-1-13</del>																	
	<del>2615V2-1-13</del>																	

Relinquished by:	Date/Time: <u>12/5/19 17:00</u>	Received by:	Date/Time: <u>12/5/19 5:04PM</u>
Relinquished by:	Date/Time: <u>12/6/19 10:15</u>	Received by:	Date/Time: <u>12/6/19 10:15</u>
Relinquished by:	Date/Time: <u>12/6/19 11:15</u>	Received by:	Date/Time: <u>12/6/19 11:15</u>

## ANALYTICAL REPORT

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

Laboratory Job ID: 500-174684-1  
Client Project/Site: IDOT - AE7-028

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
12/20/2019 2:57:22 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 - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B37**

**Lab Sample ID: 500-174684-8**

**Date Collected: 12/05/19 12:05**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**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	<0.0019		0.0019	0.00062	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00065	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
<b>Acetone</b>	<b>0.010</b>	<b>J</b>	0.019	0.0081	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Benzene	<0.0019		0.0019	0.00047	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Bromoform	<0.0019		0.0019	0.00054	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Ethylbenzene	<0.0019		0.0019	0.00089	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Styrene	<0.0019		0.0019	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Tetrachloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00082	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00065	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Vinyl chloride	<0.0019		0.0019	0.00082	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 05:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 134	12/07/19 07:50	12/14/19 05:00	1
4-Bromofluorobenzene (Surr)	101		75 - 131	12/07/19 07:50	12/14/19 05:00	1
Dibromofluoromethane	91		75 - 126	12/07/19 07:50	12/14/19 05:00	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/14/19 05:00	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	☼	12/13/19 15:56	12/16/19 13:40	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B37**

**Lab Sample ID: 500-174684-8**

Date Collected: 12/05/19 12:05

Matrix: Solid

Date Received: 12/06/19 11:15

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	☼	12/13/19 15:56	12/16/19 13:40	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
<b>2-Methylnaphthalene</b>	<b>0.029</b>	<b>J *</b>	0.080	0.0073	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Acenaphthylene	<0.040		0.040	0.0052	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
<b>Anthracene</b>	<b>0.022</b>	<b>J</b>	0.040	0.0066	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
<b>Benzo[a]anthracene</b>	<b>0.046</b>		0.040	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.060	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
<b>Chrysene</b>	<b>0.063</b>		0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
<b>Fluoranthene</b>	<b>0.086</b>		0.040	0.0074	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Hexachlorocyclopentadiene	<0.80	*	0.80	0.23	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B37**

**Lab Sample ID: 500-174684-8**

Date Collected: 12/05/19 12:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.2

## 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	<0.040		0.040	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
<b>Phenanthrene</b>	<b>0.16</b>		0.040	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
<b>Pyrene</b>	<b>0.089</b>		0.040	0.0079	mg/Kg	☼	12/13/19 15:56	12/16/19 13:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	74		31 - 143				12/13/19 15:56	12/16/19 13:40	1
2-Fluorobiphenyl	91		43 - 145				12/13/19 15:56	12/16/19 13:40	1
2-Fluorophenol	51		31 - 166				12/13/19 15:56	12/16/19 13:40	1
Nitrobenzene-d5	65		37 - 147				12/13/19 15:56	12/16/19 13:40	1
Phenol-d5	57		30 - 153				12/13/19 15:56	12/16/19 13:40	1
Terphenyl-d14	94		42 - 157				12/13/19 15:56	12/16/19 13:40	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.47</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Arsenic</b>	<b>7.7</b>		0.56	0.19	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Barium</b>	<b>37</b>		0.56	0.064	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Beryllium</b>	<b>0.85</b>		0.22	0.052	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Boron</b>	<b>18</b>	<b>B</b>	2.8	0.26	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Cadmium</b>	<b>0.13</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Calcium</b>	<b>59000</b>	<b>B</b>	110	19	mg/Kg	☼	12/11/19 18:03	12/13/19 11:46	10
<b>Chromium</b>	<b>17</b>		0.56	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Cobalt</b>	<b>16</b>		0.28	0.073	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Copper</b>	<b>32</b>		0.56	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Iron</b>	<b>21000</b>	<b>B</b>	11	5.8	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Lead</b>	<b>17</b>		0.28	0.13	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Magnesium</b>	<b>24000</b>	<b>B</b>	5.6	2.8	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Manganese</b>	<b>360</b>		0.56	0.081	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Nickel</b>	<b>39</b>		0.56	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Potassium</b>	<b>3700</b>		28	9.9	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
Selenium	<0.56		0.56	0.33	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Silver</b>	<b>2.1</b>		0.28	0.072	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Sodium</b>	<b>300</b>		56	8.3	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Thallium</b>	<b>0.91</b>		0.56	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Vanadium</b>	<b>20</b>		0.28	0.066	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1
<b>Zinc</b>	<b>64</b>		1.1	0.49	mg/Kg	☼	12/11/19 18:03	12/12/19 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/18/19 14:53	12/19/19 09:16	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/18/19 14:53	12/19/19 09:16	1
<b>Manganese</b>	<b>1.9</b>		0.025	0.010	mg/L		12/18/19 14:53	12/19/19 09:16	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B37**

**Lab Sample ID: 500-174684-8**

Date Collected: 12/05/19 12:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.2

**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		12/12/19 15:24	12/13/19 21:35	1
<b>Barium</b>	<b>0.17</b>	<b>J</b>	0.50	0.050	mg/L		12/12/19 15:24	12/13/19 21:35	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Boron</b>	<b>0.17</b>		0.10	0.050	mg/L		12/12/19 15:24	12/13/19 21:35	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Calcium</b>	<b>24</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Chromium</b>	<b>0.053</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Cobalt</b>	<b>0.018</b>	<b>J</b>	0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Iron</b>	<b>30</b>		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Lead</b>	<b>0.034</b>		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Manganese</b>	<b>0.25</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Nickel</b>	<b>0.055</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Potassium</b>	<b>22</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 21:35	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 21:35	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:35	1
<b>Zinc</b>	<b>0.11</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060	0.0060	mg/L		12/12/19 15:24	12/13/19 14:36	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 14:36	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		12/13/19 10:05	12/16/19 08:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.019</b>	<b>J</b>	0.020	0.0065	mg/Kg	☼	12/12/19 14:20	12/13/19 09:34	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.42		0.42	0.21	mg/Kg	☼	12/16/19 10:25	12/16/19 16:08	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/12/19 15:20	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-1**

**Lab Sample ID: 500-174684-9**

**Date Collected: 12/05/19 13:55**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 82.5**

**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	☼	12/07/19 07:50	12/14/19 05:25	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00057	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
<b>Acetone</b>	<b>0.036</b>		0.018	0.0077	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Chloroform	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Chloromethane	<0.0044		0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	12/07/19 07:50	12/14/19 05:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	12/07/19 07:50	12/14/19 05:25	1
4-Bromofluorobenzene (Surr)	107		75 - 131	12/07/19 07:50	12/14/19 05:25	1
Dibromofluoromethane	92		75 - 126	12/07/19 07:50	12/14/19 05:25	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/14/19 05:25	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	☼	12/13/19 15:56	12/16/19 14:03	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-1**

**Lab Sample ID: 500-174684-9**

Date Collected: 12/05/19 13:55

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.5

**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	☼	12/13/19 15:56	12/16/19 14:03	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2,4-Dichlorophenol	<0.40		0.40	0.095	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
<b>2-Methylnaphthalene</b>	<b>0.028</b>	<b>J *</b>	0.080	0.0073	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Acenaphthene	<0.040		0.040	0.0072	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.060	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Hexachlorobenzene	<0.080		0.080	0.0093	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Hexachlorocyclopentadiene	<0.80	*	0.80	0.23	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-1**

**Lab Sample ID: 500-174684-9**

Date Collected: 12/05/19 13:55

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.5

**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	☼	12/13/19 15:56	12/16/19 14:03	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
<b>Phenanthrene</b>	<b>0.10</b>		0.040	0.0056	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
Phenol	<0.20		0.20	0.089	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	1
<b>Pyrene</b>	<b>0.014</b>	<b>J</b>	0.040	0.0079	mg/Kg	☼	12/13/19 15:56	12/16/19 14:03	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	80		31 - 143				12/13/19 15:56	12/16/19 14:03	1
2-Fluorobiphenyl	90		43 - 145				12/13/19 15:56	12/16/19 14:03	1
2-Fluorophenol	52		31 - 166				12/13/19 15:56	12/16/19 14:03	1
Nitrobenzene-d5	64		37 - 147				12/13/19 15:56	12/16/19 14:03	1
Phenol-d5	58		30 - 153				12/13/19 15:56	12/16/19 14:03	1
Terphenyl-d14	92		42 - 157				12/13/19 15:56	12/16/19 14:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<1.2		1.2	0.23	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Arsenic</b>	<b>8.8</b>		0.60	0.20	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Barium</b>	<b>40</b>		0.60	0.068	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Beryllium</b>	<b>0.82</b>		0.24	0.056	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Boron</b>	<b>22</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Cadmium</b>	<b>0.11</b>	<b>J B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Calcium</b>	<b>43000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:03	12/13/19 11:50	10
<b>Chromium</b>	<b>18</b>		0.60	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Cobalt</b>	<b>17</b>		0.30	0.078	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Copper</b>	<b>39</b>		0.60	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Iron</b>	<b>21000</b>	<b>B ^</b>	12	6.2	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Lead</b>	<b>17</b>		0.30	0.14	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Magnesium</b>	<b>21000</b>	<b>B</b>	6.0	3.0	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Manganese</b>	<b>320</b>		0.60	0.086	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Nickel</b>	<b>45</b>		0.60	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Potassium</b>	<b>4100</b>		30	11	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Selenium</b>	<b>0.50</b>	<b>J B</b>	0.60	0.35	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Silver</b>	<b>1.9</b>		0.30	0.077	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Sodium</b>	<b>400</b>		60	8.8	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Thallium</b>	<b>0.98</b>		0.60	0.30	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Vanadium</b>	<b>22</b>		0.30	0.070	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	1
<b>Zinc</b>	<b>54</b>		1.2	0.52	mg/Kg	☼	12/11/19 18:03	12/12/19 20:31	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		12/12/19 15:24	12/13/19 21:47	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 21:47	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 21:47	1
<b>Boron</b>	<b>0.055</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 21:47	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-1**

**Lab Sample ID: 500-174684-9**

Date Collected: 12/05/19 13:55

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 82.5

**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		12/12/19 15:24	12/13/19 21:47	1
<b>Calcium</b>	<b>95</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 21:47	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:47	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:47	1
Iron	<0.40		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 21:47	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 21:47	1
<b>Manganese</b>	<b>0.048</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:47	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:47	1
<b>Potassium</b>	<b>3.9</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 21:47	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 21:47	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:47	1
<b>Zinc</b>	<b>0.22</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 21:47	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		12/12/19 15:24	12/13/19 14:43	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 14:43	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		12/13/19 10:05	12/16/19 08:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.019</b>		0.019	0.0062	mg/Kg	☼	12/12/19 14:20	12/13/19 09:36	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.27	mg/Kg	☼	12/16/19 10:25	12/16/19 16:09	1
<b>pH</b>	<b>7.5</b>		0.2	0.2	SU			12/12/19 15:22	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-2**

**Lab Sample ID: 500-174684-10**

**Date Collected: 12/05/19 14:00**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 81.3**

**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	0.00058	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
<b>Acetone</b>	<b>0.0091</b>	<b>J</b>	0.017	0.0075	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 07:50	12/14/19 05:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	12/07/19 07:50	12/14/19 05:51	1
4-Bromofluorobenzene (Surr)	102		75 - 131	12/07/19 07:50	12/14/19 05:51	1
Dibromofluoromethane	92		75 - 126	12/07/19 07:50	12/14/19 05:51	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/14/19 05:51	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	☼	12/13/19 15:56	12/16/19 14:26	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-2**

**Lab Sample ID: 500-174684-10**

Date Collected: 12/05/19 14:00

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.3

**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	0.093	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
<b>2-Methylnaphthalene</b>	<b>0.043</b>	<b>J *</b>	0.082	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
<b>Chrysene</b>	<b>0.023</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Hexachlorocyclopentadiene	<0.82	*	0.82	0.23	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-2**

**Lab Sample ID: 500-174684-10**

Date Collected: 12/05/19 14:00

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.3

**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	☼	12/13/19 15:56	12/16/19 14:26	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
<b>Phenanthrene</b>	<b>0.096</b>		0.040	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Pyrene	<0.040		0.040	0.0081	mg/Kg	☼	12/13/19 15:56	12/16/19 14:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	76		31 - 143				12/13/19 15:56	12/16/19 14:26	1
2-Fluorobiphenyl	91		43 - 145				12/13/19 15:56	12/16/19 14:26	1
2-Fluorophenol	50		31 - 166				12/13/19 15:56	12/16/19 14:26	1
Nitrobenzene-d5	64		37 - 147				12/13/19 15:56	12/16/19 14:26	1
Phenol-d5	55		30 - 153				12/13/19 15:56	12/16/19 14:26	1
Terphenyl-d14	88		42 - 157				12/13/19 15:56	12/16/19 14:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.54</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Arsenic</b>	<b>7.8</b>		0.61	0.21	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Barium</b>	<b>45</b>		0.61	0.069	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Beryllium</b>	<b>0.77</b>		0.24	0.057	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Boron</b>	<b>20</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Calcium</b>	<b>63000</b>	<b>B</b>	120	21	mg/Kg	☼	12/11/19 18:03	12/13/19 11:55	10
<b>Chromium</b>	<b>16</b>		0.61	0.30	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Cobalt</b>	<b>14</b>		0.30	0.079	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Copper</b>	<b>30</b>		0.61	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Iron</b>	<b>20000</b>	<b>B ^</b>	12	6.3	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Lead</b>	<b>14</b>		0.30	0.14	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Magnesium</b>	<b>25000</b>	<b>B</b>	6.1	3.0	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Manganese</b>	<b>360</b>		0.61	0.088	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Nickel</b>	<b>36</b>		0.61	0.18	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Potassium</b>	<b>3700</b>		30	11	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Selenium</b>	<b>0.91</b>	<b>B</b>	0.61	0.36	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Silver</b>	<b>2.2</b>		0.30	0.078	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Sodium</b>	<b>400</b>		61	9.0	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Thallium</b>	<b>0.49</b>	<b>J</b>	0.61	0.30	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Vanadium</b>	<b>21</b>		0.30	0.072	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	1
<b>Zinc</b>	<b>52</b>		1.2	0.53	mg/Kg	☼	12/11/19 18:03	12/12/19 20:35	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		12/12/19 15:24	12/13/19 21:51	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 21:51	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 21:51	1
<b>Boron</b>	<b>0.064</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 21:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-2**

**Lab Sample ID: 500-174684-10**

Date Collected: 12/05/19 14:00

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.3

**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		12/12/19 15:24	12/13/19 21:51	1
<b>Calcium</b>	<b>19</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 21:51	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:51	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:51	1
Iron	<0.40		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 21:51	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 21:51	1
<b>Manganese</b>	<b>0.022</b>	<b>J</b>	0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:51	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:51	1
<b>Potassium</b>	<b>2.2</b>	<b>J</b>	2.5	0.50	mg/L		12/12/19 15:24	12/13/19 21:51	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 21:51	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:51	1
<b>Zinc</b>	<b>0.028</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 21:51	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		12/12/19 15:24	12/13/19 14:46	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 14:46	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		12/13/19 10:05	12/16/19 08:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J</b>	0.019	0.0065	mg/Kg	☼	12/12/19 14:20	12/13/19 09:38	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.61		0.61	0.31	mg/Kg	☼	12/16/19 10:25	12/16/19 16:09	1
<b>pH</b>	<b>7.5</b>		0.2	0.2	SU			12/12/19 15:28	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-3**

**Lab Sample ID: 500-174684-11**

Date Collected: 12/05/19 14:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0019		0.0019	0.00065	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00062	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00083	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
1,1-Dichloroethane	<0.0019		0.0019	0.00067	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
1,1-Dichloroethene	<0.0019		0.0019	0.00067	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
1,2-Dichloroethane	<0.0049		0.0049	0.0015	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
1,2-Dichloropropane	<0.0019		0.0019	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00068	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
2-Butanone (MEK)	<0.0049		0.0049	0.0022	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
2-Hexanone	<0.0049		0.0049	0.0015	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
4-Methyl-2-pentanone (MIBK)	<0.0049		0.0049	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Acetone	<0.019		0.019	0.0085	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Benzene	<0.0019		0.0019	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Bromodichloromethane	<0.0019		0.0019	0.00040	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Bromoform	<0.0019		0.0019	0.00057	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Bromomethane	<0.0049		0.0049	0.0018	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Carbon disulfide	<0.0049		0.0049	0.0010	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Carbon tetrachloride	<0.0019		0.0019	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Chlorobenzene	<0.0019		0.0019	0.00072	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Chloroethane	<0.0049		0.0049	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Chloroform	<0.0019		0.0019	0.00067	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Chloromethane	<0.0049		0.0049	0.0020	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00054	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Dibromochloromethane	<0.0019		0.0019	0.00064	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Ethylbenzene	<0.0019		0.0019	0.00093	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00057	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Methylene Chloride	<0.0049		0.0049	0.0019	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Styrene	<0.0019		0.0019	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Tetrachloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Toluene	<0.0019		0.0019	0.00049	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00086	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00068	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Trichloroethene	<0.0019		0.0019	0.00066	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Vinyl chloride	<0.0019		0.0019	0.00086	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1
Xylenes, Total	<0.0039		0.0039	0.00062	mg/Kg	☼	12/07/19 07:50	12/14/19 06:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/07/19 07:50	12/14/19 06:16	1
4-Bromofluorobenzene (Surr)	101		75 - 131	12/07/19 07:50	12/14/19 06:16	1
Dibromofluoromethane	90		75 - 126	12/07/19 07:50	12/14/19 06:16	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/14/19 06:16	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	☼	12/13/19 15:56	12/16/19 14:49	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-3**

**Lab Sample ID: 500-174684-11**

Date Collected: 12/05/19 14:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

**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	0.092	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2-Methylnaphthalene	<0.081	*	0.081	0.0074	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Anthracene	<0.040		0.040	0.0067	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Hexachlorobenzene	<0.081		0.081	0.0094	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Hexachlorocyclopentadiene	<0.81	*	0.81	0.23	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-3**

**Lab Sample ID: 500-174684-11**

Date Collected: 12/05/19 14:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

**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	☼	12/13/19 15:56	12/16/19 14:49	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
<b>Phenanthrene</b>	<b>0.087</b>		0.040	0.0056	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
<b>Pyrene</b>	<b>0.015</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	12/13/19 15:56	12/16/19 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	83		31 - 143				12/13/19 15:56	12/16/19 14:49	1
2-Fluorobiphenyl	93		43 - 145				12/13/19 15:56	12/16/19 14:49	1
2-Fluorophenol	44		31 - 166				12/13/19 15:56	12/16/19 14:49	1
Nitrobenzene-d5	58		37 - 147				12/13/19 15:56	12/16/19 14:49	1
Phenol-d5	56		30 - 153				12/13/19 15:56	12/16/19 14:49	1
Terphenyl-d14	96		42 - 157				12/13/19 15:56	12/16/19 14:49	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>	1.2	0.24	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Arsenic</b>	<b>7.7</b>		0.62	0.21	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Barium</b>	<b>44</b>		0.62	0.070	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Beryllium</b>	<b>0.76</b>		0.25	0.058	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Boron</b>	<b>20</b>	<b>B</b>	3.1	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Calcium</b>	<b>54000</b>	<b>B</b>	120	21	mg/Kg	☼	12/11/19 18:03	12/13/19 11:59	10
<b>Chromium</b>	<b>17</b>		0.62	0.31	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Cobalt</b>	<b>14</b>		0.31	0.081	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Copper</b>	<b>31</b>		0.62	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Iron</b>	<b>21000</b>	<b>B ^</b>	12	6.4	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Lead</b>	<b>14</b>		0.31	0.14	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Magnesium</b>	<b>25000</b>	<b>B</b>	6.2	3.1	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Manganese</b>	<b>380</b>		0.62	0.089	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Nickel</b>	<b>36</b>		0.62	0.18	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Potassium</b>	<b>3800</b>		31	11	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Selenium</b>	<b>0.74</b>	<b>B</b>	0.62	0.36	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Silver</b>	<b>2.1</b>		0.31	0.080	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Sodium</b>	<b>240</b>		62	9.1	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Thallium</b>	<b>0.72</b>		0.62	0.31	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Vanadium</b>	<b>21</b>		0.31	0.073	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	1
<b>Zinc</b>	<b>53</b>		1.2	0.54	mg/Kg	☼	12/11/19 18:03	12/12/19 20:39	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		12/12/19 15:24	12/13/19 21:55	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 21:55	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 21:55	1
<b>Boron</b>	<b>0.071</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 21:55	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-3**

**Lab Sample ID: 500-174684-11**

Date Collected: 12/05/19 14:05

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.5

## 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		12/12/19 15:24	12/13/19 21:55	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 21:55	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:55	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:55	1
<b>Iron</b>	<b>0.65</b>		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 21:55	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 21:55	1
<b>Manganese</b>	<b>0.027</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:55	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:55	1
<b>Potassium</b>	<b>2.2 J</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 21:55	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 21:55	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 21:55	1
Zinc	<0.50		0.50	0.020	mg/L		12/12/19 15:24	12/13/19 21:55	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		12/12/19 15:24	12/13/19 14:48	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 14:48	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		12/13/19 10:05	12/16/19 08:51	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.030</b>		0.020	0.0067	mg/Kg	☼	12/12/19 14:20	12/13/19 09:46	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.48		0.48	0.24	mg/Kg	☼	12/16/19 10:25	12/16/19 16:09	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 15:30	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-4**

**Lab Sample ID: 500-174684-12**

**Date Collected: 12/05/19 14:10**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 80.4**

**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	☼	12/07/19 07:50	12/14/19 06:42	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
1,1-Dichloroethane	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
1,1-Dichloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
1,2-Dichloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
1,2-Dichloropropane	<0.0018		0.0018	0.00048	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
2-Butanone (MEK)	<0.0046		0.0046	0.0020	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
2-Hexanone	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
4-Methyl-2-pentanone (MIBK)	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
<b>Acetone</b>	<b>0.027</b>		0.018	0.0080	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Benzene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Bromodichloromethane	<0.0018		0.0018	0.00038	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Bromoform	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Bromomethane	<0.0046		0.0046	0.0017	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Carbon disulfide	<0.0046		0.0046	0.00096	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Carbon tetrachloride	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Chlorobenzene	<0.0018		0.0018	0.00068	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Chloroethane	<0.0046		0.0046	0.0014	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Chloroform	<0.0018		0.0018	0.00064	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Chloromethane	<0.0046		0.0046	0.0019	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Dibromochloromethane	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Ethylbenzene	<0.0018		0.0018	0.00088	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Methylene Chloride	<0.0046		0.0046	0.0018	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Styrene	<0.0018		0.0018	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Tetrachloroethene	<0.0018		0.0018	0.00063	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Toluene	<0.0018		0.0018	0.00047	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00082	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Trichloroethene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Vinyl chloride	<0.0018		0.0018	0.00082	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1
Xylenes, Total	<0.0037		0.0037	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 06:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	12/07/19 07:50	12/14/19 06:42	1
4-Bromofluorobenzene (Surr)	103		75 - 131	12/07/19 07:50	12/14/19 06:42	1
Dibromofluoromethane	91		75 - 126	12/07/19 07:50	12/14/19 06:42	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/14/19 06:42	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	☼	12/13/19 15:56	12/16/19 15:12	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-4**

**Lab Sample ID: 500-174684-12**

Date Collected: 12/05/19 14:10

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2,4-Dinitrophenol	<0.83		0.83	0.73	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2-Methylnaphthalene	<0.083	*	0.083	0.0076	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Bis(2-chloroethyl)ether	<0.21	*	0.21	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Hexachlorobenzene	<0.083		0.083	0.0096	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Hexachlorocyclopentadiene	<0.83	*	0.83	0.24	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-4**

**Lab Sample ID: 500-174684-12**

Date Collected: 12/05/19 14:10

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.4

## 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	☼	12/13/19 15:56	12/16/19 15:12	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
<b>Phenanthrene</b>	<b>0.058</b>		0.041	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Phenol	<0.21		0.21	0.092	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
<b>Pyrene</b>	<b>0.011</b>	<b>J</b>	0.041	0.0082	mg/Kg	☼	12/13/19 15:56	12/16/19 15:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	74		31 - 143				12/13/19 15:56	12/16/19 15:12	1
2-Fluorobiphenyl	90		43 - 145				12/13/19 15:56	12/16/19 15:12	1
2-Fluorophenol	49		31 - 166				12/13/19 15:56	12/16/19 15:12	1
Nitrobenzene-d5	62		37 - 147				12/13/19 15:56	12/16/19 15:12	1
Phenol-d5	58		30 - 153				12/13/19 15:56	12/16/19 15:12	1
Terphenyl-d14	93		42 - 157				12/13/19 15:56	12/16/19 15:12	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.36</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Arsenic</b>	<b>7.2</b>		0.60	0.21	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Barium</b>	<b>42</b>		0.60	0.068	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Beryllium</b>	<b>0.68</b>		0.24	0.056	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Boron</b>	<b>18</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:03	12/13/19 12:03	10
<b>Chromium</b>	<b>16</b>		0.60	0.30	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Cobalt</b>	<b>13</b>		0.30	0.079	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Copper</b>	<b>29</b>		0.60	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Iron</b>	<b>20000</b>	<b>B ^</b>	12	6.2	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Lead</b>	<b>14</b>		0.30	0.14	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Magnesium</b>	<b>24000</b>	<b>B</b>	6.0	3.0	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Manganese</b>	<b>360</b>		0.60	0.087	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Nickel</b>	<b>35</b>		0.60	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Potassium</b>	<b>3300</b>		30	11	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
Selenium	<0.60		0.60	0.35	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Silver</b>	<b>2.0</b>		0.30	0.077	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Sodium</b>	<b>230</b>		60	8.9	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Thallium</b>	<b>0.57</b>	<b>J</b>	0.60	0.30	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Vanadium</b>	<b>20</b>		0.30	0.071	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1
<b>Zinc</b>	<b>69</b>		1.2	0.53	mg/Kg	☼	12/11/19 18:03	12/12/19 20:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.40		0.40	0.20	mg/L		12/18/19 14:53	12/19/19 09:21	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/18/19 14:53	12/19/19 09:21	1
<b>Manganese</b>	<b>1.9</b>		0.025	0.010	mg/L		12/18/19 14:53	12/19/19 09:21	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B36-4**

**Lab Sample ID: 500-174684-12**

Date Collected: 12/05/19 14:10

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.4

## 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		12/12/19 15:24	12/13/19 22:00	1
<b>Barium</b>	<b>0.10</b>	<b>J</b>	0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:00	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Boron</b>	<b>0.15</b>		0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:00	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Calcium</b>	<b>19</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Chromium</b>	<b>0.028</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:00	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Iron</b>	<b>16</b>		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Lead</b>	<b>0.013</b>		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Manganese</b>	<b>0.16</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Nickel</b>	<b>0.026</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Potassium</b>	<b>12</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:00	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:00	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:00	1
<b>Zinc</b>	<b>0.077</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:00	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		12/12/19 15:24	12/13/19 14:50	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 14:50	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		12/13/19 10:05	12/16/19 08:53	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017</b>	<b>J</b>	0.019	0.0064	mg/Kg	☼	12/12/19 14:20	12/13/19 09:49	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.59		0.59	0.29	mg/Kg	☼	12/16/19 10:25	12/16/19 16:10	1
<b>pH</b>	<b>7.9</b>		0.2	0.2	SU			12/12/19 15:33	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-1**

**Lab Sample ID: 500-174684-13**

**Date Collected: 12/05/19 12:15**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 80.6**

## 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	0.00055	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00070	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
1,1-Dichloroethane	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
1,1-Dichloroethene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
1,2-Dichloroethane	<0.0041		0.0041	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
1,2-Dichloropropane	<0.0016		0.0016	0.00042	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
2-Butanone (MEK)	<0.0041		0.0041	0.0018	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
2-Hexanone	<0.0041		0.0041	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
4-Methyl-2-pentanone (MIBK)	<0.0041		0.0041	0.0012	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
<b>Acetone</b>	<b>0.012</b>	<b>J</b>	0.016	0.0071	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Benzene	<0.0016		0.0016	0.00042	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Bromoform	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Bromomethane	<0.0041		0.0041	0.0015	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Carbon disulfide	<0.0041		0.0041	0.00085	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Carbon tetrachloride	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Chlorobenzene	<0.0016		0.0016	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Chloroethane	<0.0041		0.0041	0.0012	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Chloroform	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Chloromethane	<0.0041		0.0041	0.0016	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00049	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Dibromochloromethane	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Ethylbenzene	<0.0016		0.0016	0.00078	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Methylene Chloride	<0.0041		0.0041	0.0016	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Styrene	<0.0016		0.0016	0.00049	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Toluene	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00072	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00057	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Trichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Vinyl chloride	<0.0016		0.0016	0.00072	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1
Xylenes, Total	<0.0033		0.0033	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 07:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/07/19 07:50	12/14/19 07:07	1
4-Bromofluorobenzene (Surr)	106		75 - 131	12/07/19 07:50	12/14/19 07:07	1
Dibromofluoromethane	88		75 - 126	12/07/19 07:50	12/14/19 07:07	1
Toluene-d8 (Surr)	94		75 - 124	12/07/19 07:50	12/14/19 07:07	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	☼	12/13/19 15:56	12/16/19 17:51	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-1**

**Lab Sample ID: 500-174684-13**

Date Collected: 12/05/19 12:15

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.092	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2,4-Dinitrophenol	<0.81		0.81	0.71	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2,6-Dinitrotoluene	<0.20		0.20	0.079	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>2-Methylnaphthalene</b>	<b>0.080</b>	<b>J *</b>	0.081	0.0074	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
2-Nitrophenol	<0.40		0.40	0.095	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
3 & 4 Methylphenol	<0.20		0.20	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
4,6-Dinitro-2-methylphenol	<0.81		0.81	0.32	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
4-Chloroaniline	<0.81		0.81	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
4-Nitrophenol	<0.81		0.81	0.38	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Acenaphthene</b>	<b>0.098</b>		0.040	0.0073	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Acenaphthylene</b>	<b>0.045</b>		0.040	0.0053	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Anthracene</b>	<b>0.29</b>		0.040	0.0067	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Benzo[a]anthracene</b>	<b>0.80</b>		0.040	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Benzo[a]pyrene</b>	<b>0.74</b>		0.040	0.0078	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Benzo[b]fluoranthene</b>	<b>1.0</b>		0.040	0.0087	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Benzo[g,h,i]perylene</b>	<b>0.31</b>		0.040	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Benzo[k]fluoranthene</b>	<b>0.54</b>		0.040	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Carbazole</b>	<b>0.19</b>	<b>J</b>	0.20	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Chrysene</b>	<b>0.94</b>		0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Dibenz(a,h)anthracene</b>	<b>0.11</b>		0.040	0.0078	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Dibenzofuran</b>	<b>0.067</b>	<b>J</b>	0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Diethyl phthalate	<0.20		0.20	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Fluoranthene</b>	<b>1.7</b>		0.040	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Fluorene</b>	<b>0.13</b>		0.040	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Hexachlorobenzene	<0.081		0.081	0.0094	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Hexachlorobutadiene	<0.20		0.20	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Hexachlorocyclopentadiene	<0.81	*	0.81	0.23	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Hexachloroethane	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-1**

**Lab Sample ID: 500-174684-13**

Date Collected: 12/05/19 12:15

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

## 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>0.30</b>		0.040	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Naphthalene</b>	<b>0.14</b>		0.040	0.0062	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
N-Nitrosodi-n-propylamine	<0.081		0.081	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Pentachlorophenol	<0.81		0.81	0.65	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Phenanthrene</b>	<b>1.3</b>		0.040	0.0056	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
<b>Pyrene</b>	<b>1.6</b>		0.040	0.0080	mg/Kg	☼	12/13/19 15:56	12/16/19 17:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		31 - 143				12/13/19 15:56	12/16/19 17:51	1
2-Fluorobiphenyl	93		43 - 145				12/13/19 15:56	12/16/19 17:51	1
2-Fluorophenol	52		31 - 166				12/13/19 15:56	12/16/19 17:51	1
Nitrobenzene-d5	67		37 - 147				12/13/19 15:56	12/16/19 17:51	1
Phenol-d5	57		30 - 153				12/13/19 15:56	12/16/19 17:51	1
Terphenyl-d14	92		42 - 157				12/13/19 15:56	12/16/19 17:51	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.45</b>	<b>J</b>	1.2	0.22	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Arsenic</b>	<b>7.8</b>		0.58	0.20	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Barium</b>	<b>68</b>		0.58	0.066	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Beryllium</b>	<b>0.67</b>		0.23	0.054	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Boron</b>	<b>19</b>	<b>B</b>	2.9	0.27	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Cadmium</b>	<b>0.35</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Calcium</b>	<b>60000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:03	12/13/19 12:16	10
<b>Chromium</b>	<b>16</b>		0.58	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Cobalt</b>	<b>12</b>		0.29	0.075	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Copper</b>	<b>42</b>		0.58	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Iron</b>	<b>17000</b>	<b>B ^</b>	12	6.0	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Lead</b>	<b>65</b>		0.29	0.13	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Magnesium</b>	<b>26000</b>	<b>B</b>	5.8	2.9	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Manganese</b>	<b>300</b>		0.58	0.084	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Nickel</b>	<b>31</b>		0.58	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Potassium</b>	<b>3100</b>		29	10	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Selenium</b>	<b>0.73</b>	<b>B</b>	0.58	0.34	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Silver</b>	<b>2.1</b>		0.29	0.074	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Sodium</b>	<b>550</b>		58	8.5	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Thallium</b>	<b>0.50</b>	<b>J</b>	0.58	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Vanadium</b>	<b>20</b>		0.29	0.068	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	1
<b>Zinc</b>	<b>88</b>		1.2	0.51	mg/Kg	☼	12/11/19 18:03	12/12/19 20:47	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		12/12/19 15:24	12/13/19 22:04	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:04	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:04	1
<b>Boron</b>	<b>0.058</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:04	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-1**

**Lab Sample ID: 500-174684-13**

Date Collected: 12/05/19 12:15

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

## 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		12/12/19 15:24	12/13/19 22:04	1
<b>Calcium</b>	<b>150</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:04	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:04	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:04	1
Iron	<0.40		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:04	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:04	1
Manganese	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:04	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:04	1
<b>Potassium</b>	<b>3.3</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:04	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:04	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:04	1
<b>Zinc</b>	<b>0.16</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:04	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		12/12/19 15:24	12/13/19 14:53	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 14:53	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		12/13/19 10:05	12/16/19 08:55	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.066</b>		0.019	0.0064	mg/Kg	☼	12/12/19 14:20	12/13/19 09:55	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.26	mg/Kg	☼	12/16/19 10:25	12/16/19 16:10	1
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			12/12/19 15:36	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-2**

**Lab Sample ID: 500-174684-14**

Date Collected: 12/05/19 12:20

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

## 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	0.00057	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
<b>Acetone</b>	<b>0.0091</b>	<b>J</b>	0.017	0.0074	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 07:50	12/14/19 07:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	12/07/19 07:50	12/14/19 07:33	1
4-Bromofluorobenzene (Surr)	107		75 - 131	12/07/19 07:50	12/14/19 07:33	1
Dibromofluoromethane	90		75 - 126	12/07/19 07:50	12/14/19 07:33	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/14/19 07:33	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	☼	12/13/19 15:56	12/16/19 15:34	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-2**

**Lab Sample ID: 500-174684-14**

Date Collected: 12/05/19 12:20

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.094	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2,4-Dichlorophenol	<0.41		0.41	0.098	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2-Methylnaphthalene	<0.083	*	0.083	0.0076	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
3 & 4 Methylphenol	<0.21		0.21	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Anthracene	<0.041		0.041	0.0069	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Benzo[a]pyrene	<0.041		0.041	0.0080	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Benzo[b]fluoranthene	<0.041		0.041	0.0089	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Bis(2-chloroethyl)ether	<0.21	*	0.21	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
<b>Chrysene</b>	<b>0.021</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0080	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Diethyl phthalate	<0.21		0.21	0.070	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Di-n-butyl phthalate	<0.21		0.21	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Hexachlorobutadiene	<0.21		0.21	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Hexachlorocyclopentadiene	<0.83	*	0.83	0.24	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-2**

**Lab Sample ID: 500-174684-14**

Date Collected: 12/05/19 12:20

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

**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	<0.041		0.041	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
<b>Phenanthrene</b>	<b>0.092</b>		0.041	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	1
<b>Pyrene</b>	<b>0.017</b>	<b>J</b>	0.041	0.0082	mg/Kg	☼	12/13/19 15:56	12/16/19 15:34	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	82		31 - 143				12/13/19 15:56	12/16/19 15:34	1
2-Fluorobiphenyl	91		43 - 145				12/13/19 15:56	12/16/19 15:34	1
2-Fluorophenol	50		31 - 166				12/13/19 15:56	12/16/19 15:34	1
Nitrobenzene-d5	63		37 - 147				12/13/19 15:56	12/16/19 15:34	1
Phenol-d5	58		30 - 153				12/13/19 15:56	12/16/19 15:34	1
Terphenyl-d14	88		42 - 157				12/13/19 15:56	12/16/19 15:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.46</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Arsenic</b>	<b>9.2</b>		0.58	0.20	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Barium</b>	<b>35</b>		0.58	0.066	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Beryllium</b>	<b>0.77</b>		0.23	0.054	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Boron</b>	<b>17</b>	<b>B</b>	2.9	0.27	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Cadmium</b>	<b>0.13</b>	<b>B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Calcium</b>	<b>49000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:03	12/13/19 12:20	10
<b>Chromium</b>	<b>15</b>		0.58	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Cobalt</b>	<b>15</b>		0.29	0.076	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Copper</b>	<b>37</b>		0.58	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Iron</b>	<b>21000</b>	<b>B ^</b>	12	6.0	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Lead</b>	<b>16</b>		0.29	0.13	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Magnesium</b>	<b>23000</b>	<b>B</b>	5.8	2.9	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Manganese</b>	<b>340</b>		0.58	0.084	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Nickel</b>	<b>39</b>		0.58	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Potassium</b>	<b>3500</b>		29	10	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Selenium</b>	<b>0.68</b>	<b>B</b>	0.58	0.34	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Silver</b>	<b>1.9</b>		0.29	0.075	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Sodium</b>	<b>810</b>		58	8.6	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Thallium</b>	<b>0.73</b>		0.58	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Vanadium</b>	<b>19</b>		0.29	0.068	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	1
<b>Zinc</b>	<b>48</b>		1.2	0.51	mg/Kg	☼	12/11/19 18:03	12/12/19 20:51	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		12/12/19 15:24	12/13/19 22:08	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:08	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:08	1
Boron	<0.10		0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:08	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-2**

**Lab Sample ID: 500-174684-14**

Date Collected: 12/05/19 12:20

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

**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		12/12/19 15:24	12/13/19 22:08	1
<b>Calcium</b>	<b>100</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:08	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:08	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:08	1
Iron	<0.40		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:08	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:08	1
<b>Manganese</b>	<b>0.10</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:08	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:08	1
<b>Potassium</b>	<b>6.8</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:08	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:08	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:08	1
<b>Zinc</b>	<b>0.050</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:08	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		12/12/19 15:24	12/13/19 14:55	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 14:55	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		12/13/19 10:05	12/16/19 08:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.020</b>		0.020	0.0068	mg/Kg	☼	12/12/19 14:20	12/13/19 09:57	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54		0.54	0.27	mg/Kg	☼	12/16/19 10:25	12/16/19 16:11	1
<b>pH</b>	<b>8.0</b>		0.2	0.2	SU			12/12/19 15:38	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-3**

**Lab Sample ID: 500-174684-15**

Date Collected: 12/05/19 12:25

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

## 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	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00074	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
1,1-Dichloroethane	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Acetone	<0.017		0.017	0.0075	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Carbon disulfide	<0.0043		0.0043	0.00089	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Chloromethane	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Ethylbenzene	<0.0017		0.0017	0.00082	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Styrene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Trichloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Vinyl chloride	<0.0017		0.0017	0.00076	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1
Xylenes, Total	<0.0034		0.0034	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 14:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 134	12/07/19 07:50	12/16/19 14:25	1
4-Bromofluorobenzene (Surr)	103		75 - 131	12/07/19 07:50	12/16/19 14:25	1
Dibromofluoromethane	85		75 - 126	12/07/19 07:50	12/16/19 14:25	1
Toluene-d8 (Surr)	97		75 - 124	12/07/19 07:50	12/16/19 14:25	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	☼	12/13/19 15:56	12/16/19 15:57	1
1,2-Dichlorobenzene	<0.21		0.21	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
1,3-Dichlorobenzene	<0.21		0.21	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-3**

**Lab Sample ID: 500-174684-15**

Date Collected: 12/05/19 12:25

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.41		0.41	0.093	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2,4-Dichlorophenol	<0.41		0.41	0.097	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2,4-Dinitrophenol	<0.83		0.83	0.72	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2,4-Dinitrotoluene	<0.21		0.21	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2,6-Dinitrotoluene	<0.21		0.21	0.081	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2-Chloronaphthalene	<0.21		0.21	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2-Chlorophenol	<0.21		0.21	0.070	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
<b>2-Methylnaphthalene</b>	<b>0.042</b>	<b>J *</b>	0.083	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2-Methylphenol	<0.21		0.21	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2-Nitroaniline	<0.21		0.21	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
2-Nitrophenol	<0.41		0.41	0.097	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
3 & 4 Methylphenol	<0.21		0.21	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.057	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
4,6-Dinitro-2-methylphenol	<0.83		0.83	0.33	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
4-Chloroaniline	<0.83		0.83	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
4-Nitrophenol	<0.83		0.83	0.39	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Acenaphthene	<0.041		0.041	0.0074	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Acenaphthylene	<0.041		0.041	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Anthracene	<0.041		0.041	0.0068	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Benzo[a]anthracene	<0.041		0.041	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Benzo[a]pyrene	<0.041		0.041	0.0079	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Benzo[b]fluoranthene	<0.041		0.041	0.0088	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.042	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Bis(2-chloroethyl)ether	<0.21	*	0.21	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.075	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Butyl benzyl phthalate	<0.21		0.21	0.078	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
<b>Chrysene</b>	<b>0.039</b>	<b>J</b>	0.041	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0079	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Dibenzofuran	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Diethyl phthalate	<0.21		0.21	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Dimethyl phthalate	<0.21		0.21	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Di-n-butyl phthalate	<0.21		0.21	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Di-n-octyl phthalate	<0.21		0.21	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Fluoranthene	<0.041		0.041	0.0076	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Fluorene	<0.041		0.041	0.0058	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Hexachlorobenzene	<0.083		0.083	0.0095	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Hexachlorobutadiene	<0.21		0.21	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Hexachlorocyclopentadiene	<0.83	*	0.83	0.24	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Hexachloroethane	<0.21		0.21	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-3**

**Lab Sample ID: 500-174684-15**

Date Collected: 12/05/19 12:25

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

**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	<0.041		0.041	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Isophorone	<0.21		0.21	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Naphthalene	<0.041		0.041	0.0063	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
N-Nitrosodi-n-propylamine	<0.083		0.083	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
N-Nitrosodiphenylamine	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Pentachlorophenol	<0.83		0.83	0.66	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
<b>Phenanthrene</b>	<b>0.12</b>		0.041	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Phenol	<0.21		0.21	0.091	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Pyrene	<0.041		0.041	0.0081	mg/Kg	☼	12/13/19 15:56	12/16/19 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	85		31 - 143				12/13/19 15:56	12/16/19 15:57	1
2-Fluorobiphenyl	97		43 - 145				12/13/19 15:56	12/16/19 15:57	1
2-Fluorophenol	52		31 - 166				12/13/19 15:56	12/16/19 15:57	1
Nitrobenzene-d5	67		37 - 147				12/13/19 15:56	12/16/19 15:57	1
Phenol-d5	59		30 - 153				12/13/19 15:56	12/16/19 15:57	1
Terphenyl-d14	96		42 - 157				12/13/19 15:56	12/16/19 15:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.22</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Arsenic</b>	<b>8.6</b>		0.57	0.20	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Barium</b>	<b>43</b>		0.57	0.065	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Beryllium</b>	<b>0.83</b>		0.23	0.053	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Boron</b>	<b>21</b>	<b>B</b>	2.9	0.27	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Cadmium</b>	<b>0.11</b>	<b>B</b>	0.11	0.021	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	110	19	mg/Kg	☼	12/11/19 18:03	12/13/19 12:25	10
<b>Chromium</b>	<b>16</b>		0.57	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Cobalt</b>	<b>14</b>		0.29	0.075	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Copper</b>	<b>33</b>		0.57	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Iron</b>	<b>25000</b>	<b>B ^</b>	11	5.9	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Lead</b>	<b>18</b>		0.29	0.13	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Magnesium</b>	<b>28000</b>	<b>B</b>	5.7	2.8	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Manganese</b>	<b>410</b>		0.57	0.083	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Nickel</b>	<b>37</b>		0.57	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Potassium</b>	<b>4000</b>		29	10	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Selenium</b>	<b>0.54</b>	<b>J B</b>	0.57	0.34	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Silver</b>	<b>2.0</b>		0.29	0.074	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Sodium</b>	<b>300</b>		57	8.5	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Thallium</b>	<b>0.68</b>		0.57	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Vanadium</b>	<b>21</b>		0.29	0.067	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	1
<b>Zinc</b>	<b>50</b>		1.1	0.50	mg/Kg	☼	12/11/19 18:03	12/12/19 20:55	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		12/12/19 15:24	12/13/19 22:12	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:12	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:12	1
<b>Boron</b>	<b>0.062</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:12	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-3**

**Lab Sample ID: 500-174684-15**

Date Collected: 12/05/19 12:25

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

**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		12/12/19 15:24	12/13/19 22:12	1
<b>Calcium</b>	<b>17</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:12	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:12	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:12	1
Iron	<0.40		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:12	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:12	1
<b>Manganese</b>	<b>0.020</b>	<b>J</b>	0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:12	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:12	1
<b>Potassium</b>	<b>1.6</b>	<b>J</b>	2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:12	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:12	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:12	1
Zinc	<0.50		0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:12	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		12/12/19 15:24	12/13/19 14:58	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 14:58	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		12/13/19 10:05	12/16/19 08:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.016</b>	<b>J</b>	0.018	0.0060	mg/Kg	☼	12/12/19 14:20	12/13/19 09:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.51		0.51	0.26	mg/Kg	☼	12/16/19 10:25	12/16/19 16:13	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/12/19 15:41	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-3 Dup**

**Lab Sample ID: 500-174684-16**

**Date Collected: 12/05/19 12:30**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**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	<0.0019		0.0019	0.00063	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
1,1,2,2-Tetrachloroethane	<0.0019		0.0019	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
1,1,2-Trichloroethane	<0.0019		0.0019	0.00080	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
1,1-Dichloroethane	<0.0019		0.0019	0.00064	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
1,1-Dichloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
1,2-Dichloroethane	<0.0047		0.0047	0.0015	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
1,2-Dichloropropane	<0.0019		0.0019	0.00048	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
1,3-Dichloropropene, Total	<0.0019		0.0019	0.00066	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
2-Butanone (MEK)	<0.0047		0.0047	0.0021	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
2-Hexanone	<0.0047		0.0047	0.0015	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
4-Methyl-2-pentanone (MIBK)	<0.0047		0.0047	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Acetone	<0.019		0.019	0.0082	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Benzene	<0.0019		0.0019	0.00048	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Bromodichloromethane	<0.0019		0.0019	0.00038	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Bromoform	<0.0019		0.0019	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Bromomethane	<0.0047		0.0047	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Carbon disulfide	<0.0047		0.0047	0.00097	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Carbon tetrachloride	<0.0019		0.0019	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Chlorobenzene	<0.0019		0.0019	0.00069	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Chloroethane	<0.0047		0.0047	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Chloroform	<0.0019		0.0019	0.00065	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Chloromethane	<0.0047		0.0047	0.0019	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
cis-1,2-Dichloroethene	<0.0019		0.0019	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
cis-1,3-Dichloropropene	<0.0019		0.0019	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Dibromochloromethane	<0.0019		0.0019	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Ethylbenzene	<0.0019		0.0019	0.00090	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Methyl tert-butyl ether	<0.0019		0.0019	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Methylene Chloride	<0.0047		0.0047	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Styrene	<0.0019		0.0019	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Tetrachloroethene	<0.0019		0.0019	0.00064	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Toluene	<0.0019		0.0019	0.00047	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
trans-1,2-Dichloroethene	<0.0019		0.0019	0.00083	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
trans-1,3-Dichloropropene	<0.0019		0.0019	0.00066	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Trichloroethene	<0.0019		0.0019	0.00063	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Vinyl chloride	<0.0019		0.0019	0.00083	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1
Xylenes, Total	<0.0037		0.0037	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 14:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 134	12/07/19 07:50	12/16/19 14:50	1
4-Bromofluorobenzene (Surr)	105		75 - 131	12/07/19 07:50	12/16/19 14:50	1
Dibromofluoromethane	85		75 - 126	12/07/19 07:50	12/16/19 14:50	1
Toluene-d8 (Surr)	99		75 - 124	12/07/19 07:50	12/16/19 14:50	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	☼	12/13/19 15:56	12/16/19 16:20	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-3 Dup**

**Lab Sample ID: 500-174684-16**

Date Collected: 12/05/19 12:30

Matrix: Solid

Date Received: 12/06/19 11:15

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	<0.40		0.40	0.092	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2,4-Dichlorophenol	<0.40		0.40	0.096	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2,4-Dinitrophenol	<0.82		0.82	0.71	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2,4-Dinitrotoluene	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2-Chlorophenol	<0.20		0.20	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
<b>2-Methylnaphthalene</b>	<b>0.037</b>	<b>J *</b>	0.082	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Acenaphthylene	<0.040		0.040	0.0053	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Benzo[a]pyrene	<0.040		0.040	0.0078	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Benzo[b]fluoranthene	<0.040		0.040	0.0087	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Butyl benzyl phthalate	<0.20		0.20	0.077	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
<b>Chrysene</b>	<b>0.023</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0078	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Di-n-octyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Fluoranthene	<0.040		0.040	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Hexachlorocyclopentadiene	<0.82	*	0.82	0.23	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-3 Dup**

**Lab Sample ID: 500-174684-16**

Date Collected: 12/05/19 12:30

Matrix: Solid

Date Received: 12/06/19 11:15

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	<0.040		0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Naphthalene	<0.040		0.040	0.0062	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
<b>Phenanthrene</b>	<b>0.097</b>		0.040	0.0056	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Phenol	<0.20		0.20	0.090	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
<b>Pyrene</b>	<b>0.016</b>	<b>J</b>	0.040	0.0080	mg/Kg	☼	12/13/19 15:56	12/16/19 16:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	85		31 - 143				12/13/19 15:56	12/16/19 16:20	1
2-Fluorobiphenyl	92		43 - 145				12/13/19 15:56	12/16/19 16:20	1
2-Fluorophenol	50		31 - 166				12/13/19 15:56	12/16/19 16:20	1
Nitrobenzene-d5	67		37 - 147				12/13/19 15:56	12/16/19 16:20	1
Phenol-d5	58		30 - 153				12/13/19 15:56	12/16/19 16:20	1
Terphenyl-d14	98		42 - 157				12/13/19 15:56	12/16/19 16:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.68</b>	<b>J</b>	1.2	0.23	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Arsenic</b>	<b>7.5</b>		0.60	0.20	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Barium</b>	<b>45</b>		0.60	0.068	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Beryllium</b>	<b>0.78</b>		0.24	0.056	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Boron</b>	<b>21</b>	<b>B</b>	3.0	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Cadmium</b>	<b>0.11</b>	<b>J B</b>	0.12	0.021	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Calcium</b>	<b>57000</b>	<b>B</b>	120	20	mg/Kg	☼	12/11/19 18:03	12/13/19 12:29	10
<b>Chromium</b>	<b>17</b>		0.60	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Cobalt</b>	<b>14</b>		0.30	0.078	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Copper</b>	<b>29</b>		0.60	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Iron</b>	<b>20000</b>	<b>B ^</b>	12	6.2	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Lead</b>	<b>14</b>		0.30	0.14	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Magnesium</b>	<b>26000</b>	<b>B</b>	6.0	3.0	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Manganese</b>	<b>370</b>		0.60	0.086	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Nickel</b>	<b>36</b>		0.60	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Potassium</b>	<b>4000</b>		30	11	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Selenium</b>	<b>0.60</b>	<b>B</b>	0.60	0.35	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Silver</b>	<b>2.2</b>		0.30	0.077	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Sodium</b>	<b>300</b>		60	8.8	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Thallium</b>	<b>0.87</b>		0.60	0.30	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Vanadium</b>	<b>22</b>		0.30	0.070	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	1
<b>Zinc</b>	<b>50</b>		1.2	0.52	mg/Kg	☼	12/11/19 18:03	12/12/19 20:59	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		12/12/19 15:24	12/13/19 22:16	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:16	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:16	1
<b>Boron</b>	<b>0.060</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:16	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-3 Dup**

**Lab Sample ID: 500-174684-16**

Date Collected: 12/05/19 12:30

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.2

**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		12/12/19 15:24	12/13/19 22:16	1
<b>Calcium</b>	<b>17</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:16	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:16	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:16	1
Iron	<0.40		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:16	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:16	1
<b>Manganese</b>	<b>0.028</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:16	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:16	1
<b>Potassium</b>	<b>1.8 J</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:16	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:16	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:16	1
Zinc	<0.50		0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:16	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		12/12/19 15:24	12/13/19 15:00	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 15:00	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		12/13/19 10:05	12/16/19 09:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.017 J</b>		0.019	0.0062	mg/Kg	☼	12/12/19 14:20	12/13/19 10:01	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55	0.27	mg/Kg	☼	12/16/19 10:25	12/16/19 16:13	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/12/19 15:44	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-4**

**Lab Sample ID: 500-174684-17**

Date Collected: 12/05/19 12:35

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

**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	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00073	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
1,1-Dichloroethane	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
1,1-Dichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
1,2-Dichloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
1,2-Dichloropropane	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
2-Hexanone	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Acetone	<0.017		0.017	0.0074	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Benzene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Bromoform	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Carbon disulfide	<0.0043		0.0043	0.00088	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Carbon tetrachloride	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Chlorobenzene	<0.0017		0.0017	0.00063	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Chloroform	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Chloromethane	<0.0043 *		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00048	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Dibromochloromethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Ethylbenzene	<0.0017		0.0017	0.00081	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Styrene	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Tetrachloroethene	<0.0017		0.0017	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Toluene	<0.0017		0.0017	0.00043	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Trichloroethene	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Vinyl chloride	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1
Xylenes, Total	<0.0034		0.0034	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 16:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 134	12/07/19 07:50	12/16/19 16:10	1
4-Bromofluorobenzene (Surr)	100		75 - 131	12/07/19 07:50	12/16/19 16:10	1
Dibromofluoromethane	96		75 - 126	12/07/19 07:50	12/16/19 16:10	1
Toluene-d8 (Surr)	96		75 - 124	12/07/19 07:50	12/16/19 16:10	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	☼	12/13/19 15:56	12/16/19 16:43	1
1,2-Dichlorobenzene	<0.20		0.20	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
1,3-Dichlorobenzene	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
1,4-Dichlorobenzene	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-4**

**Lab Sample ID: 500-174684-17**

Date Collected: 12/05/19 12:35

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.40		0.40	0.093	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2,4-Dichlorophenol	<0.40		0.40	0.097	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2,4-Dinitrophenol	<0.82		0.82	0.72	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2,4-Dinitrotoluene	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2,6-Dinitrotoluene	<0.20		0.20	0.080	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2-Chloronaphthalene	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2-Chlorophenol	<0.20		0.20	0.070	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2-Methylnaphthalene	<0.082	*	0.082	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2-Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2-Nitroaniline	<0.20		0.20	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
2-Nitrophenol	<0.40		0.40	0.096	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
3 & 4 Methylphenol	<0.20		0.20	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.057	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
3-Nitroaniline	<0.40		0.40	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
4,6-Dinitro-2-methylphenol	<0.82		0.82	0.33	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.054	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
4-Chloroaniline	<0.82		0.82	0.19	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
4-Nitrophenol	<0.82		0.82	0.39	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Acenaphthene	<0.040		0.040	0.0073	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Acenaphthylene	<0.040		0.040	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Anthracene	<0.040		0.040	0.0068	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Benzo[a]anthracene	<0.040		0.040	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Benzo[a]pyrene	<0.040		0.040	0.0079	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Benzo[b]fluoranthene	<0.040		0.040	0.0088	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.042	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Butyl benzyl phthalate	<0.20		0.20	0.078	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Carbazole	<0.20		0.20	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Chrysene	<0.040		0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0079	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Dibenzofuran	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Diethyl phthalate	<0.20		0.20	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Dimethyl phthalate	<0.20		0.20	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Di-n-butyl phthalate	<0.20		0.20	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Di-n-octyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Fluoranthene	<0.040		0.040	0.0076	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Fluorene	<0.040		0.040	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Hexachlorobenzene	<0.082		0.082	0.0094	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Hexachlorobutadiene	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Hexachlorocyclopentadiene	<0.82	*	0.82	0.23	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Hexachloroethane	<0.20		0.20	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-4**

**Lab Sample ID: 500-174684-17**

Date Collected: 12/05/19 12:35

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

**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	<0.040		0.040	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Isophorone	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Naphthalene	<0.040		0.040	0.0063	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Nitrobenzene	<0.040		0.040	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
N-Nitrosodi-n-propylamine	<0.082		0.082	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
N-Nitrosodiphenylamine	<0.20		0.20	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Pentachlorophenol	<0.82		0.82	0.65	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
<b>Phenanthrene</b>	<b>0.090</b>		0.040	0.0057	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
Phenol	<0.20		0.20	0.091	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	1
<b>Pyrene</b>	<b>0.014</b>	<b>J</b>	0.040	0.0081	mg/Kg	☼	12/13/19 15:56	12/16/19 16:43	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	84		31 - 143				12/13/19 15:56	12/16/19 16:43	1
2-Fluorobiphenyl	95		43 - 145				12/13/19 15:56	12/16/19 16:43	1
2-Fluorophenol	55		31 - 166				12/13/19 15:56	12/16/19 16:43	1
Nitrobenzene-d5	66		37 - 147				12/13/19 15:56	12/16/19 16:43	1
Phenol-d5	62		30 - 153				12/13/19 15:56	12/16/19 16:43	1
Terphenyl-d14	98		42 - 157				12/13/19 15:56	12/16/19 16:43	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	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Arsenic</b>	<b>7.2</b>		0.57	0.19	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Barium</b>	<b>49</b>		0.57	0.064	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Beryllium</b>	<b>0.81</b>		0.23	0.053	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Boron</b>	<b>23</b>	<b>B</b>	2.8	0.26	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Cadmium</b>	<b>0.21</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Calcium</b>	<b>60000</b>	<b>B</b>	110	19	mg/Kg	☼	12/11/19 18:03	12/13/19 12:33	10
<b>Chromium</b>	<b>17</b>		0.57	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Cobalt</b>	<b>14</b>		0.28	0.074	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Copper</b>	<b>28</b>		0.57	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Iron</b>	<b>21000</b>	<b>B ^</b>	11	5.9	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Lead</b>	<b>13</b>		0.28	0.13	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Magnesium</b>	<b>26000</b>	<b>B</b>	5.7	2.8	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Manganese</b>	<b>350</b>		0.57	0.082	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Nickel</b>	<b>35</b>		0.57	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Potassium</b>	<b>4200</b>		28	10	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Selenium</b>	<b>0.58</b>	<b>B</b>	0.57	0.33	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Silver</b>	<b>2.4</b>		0.28	0.073	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Sodium</b>	<b>300</b>		57	8.4	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Thallium</b>	<b>0.71</b>		0.57	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Vanadium</b>	<b>23</b>		0.28	0.067	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	1
<b>Zinc</b>	<b>77</b>		1.1	0.50	mg/Kg	☼	12/11/19 18:03	12/12/19 21:03	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		12/12/19 15:24	12/13/19 22:20	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:20	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:20	1
<b>Boron</b>	<b>0.079</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:20	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B41-4**

**Lab Sample ID: 500-174684-17**

Date Collected: 12/05/19 12:35

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 80.6

## 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		12/12/19 15:24	12/13/19 22:20	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:20	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:20	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:20	1
<b>Iron</b>	<b>0.29</b>	<b>J</b>	0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:20	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:20	1
<b>Manganese</b>	<b>0.020</b>	<b>J</b>	0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:20	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:20	1
<b>Potassium</b>	<b>1.8</b>	<b>J</b>	2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:20	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:20	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:20	1
<b>Zinc</b>	<b>0.021</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:20	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		12/12/19 15:24	12/13/19 15:07	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 15:07	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		12/13/19 10:05	12/16/19 09:13	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.029</b>		0.018	0.0060	mg/Kg	☼	12/12/19 14:20	12/13/19 10:03	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.53		0.53	0.26	mg/Kg	☼	12/16/19 10:25	12/16/19 16:14	1
<b>pH</b>	<b>7.6</b>		0.2	0.2	SU			12/12/19 15:46	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-1**

**Lab Sample ID: 500-174684-18**

Date Collected: 12/05/19 12:40

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 86.6

## 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	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00069	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
1,1-Dichloroethane	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
<b>Acetone</b>	<b>0.016</b>		0.016	0.0070	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Benzene	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Bromodichloromethane	<0.0016		0.0016	0.00033	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Bromoform	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Chloroform	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Chloromethane	<0.0040 *		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00045	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Ethylbenzene	<0.0016		0.0016	0.00077	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Tetrachloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00071	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Vinyl chloride	<0.0016		0.0016	0.00071	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 134	12/07/19 07:50	12/16/19 16:35	1
4-Bromofluorobenzene (Surr)	103		75 - 131	12/07/19 07:50	12/16/19 16:35	1
Dibromofluoromethane	95		75 - 126	12/07/19 07:50	12/16/19 16:35	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/16/19 16:35	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	☼	12/13/19 15:56	12/16/19 18:14	1
1,2-Dichlorobenzene	<0.19		0.19	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
1,3-Dichlorobenzene	<0.19		0.19	0.043	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
1,4-Dichlorobenzene	<0.19		0.19	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2,2'-oxybis[1-chloropropane]	<0.19		0.19	0.044	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-1**

**Lab Sample ID: 500-174684-18**

Date Collected: 12/05/19 12:40

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	<0.38		0.38	0.087	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2,4,6-Trichlorophenol	<0.38		0.38	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2,4-Dichlorophenol	<0.38		0.38	0.090	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2,4-Dimethylphenol	<0.38		0.38	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2,4-Dinitrophenol	<0.77		0.77	0.67	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2,4-Dinitrotoluene	<0.19		0.19	0.060	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2,6-Dinitrotoluene	<0.19		0.19	0.075	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2-Chloronaphthalene	<0.19		0.19	0.042	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2-Chlorophenol	<0.19		0.19	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>2-Methylnaphthalene</b>	<b>0.059</b>	<b>J *</b>	0.077	0.0070	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2-Methylphenol	<0.19		0.19	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2-Nitroaniline	<0.19		0.19	0.051	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
2-Nitrophenol	<0.38		0.38	0.090	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
3 & 4 Methylphenol	<0.19		0.19	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
3,3'-Dichlorobenzidine	<0.19		0.19	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
3-Nitroaniline	<0.38		0.38	0.12	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
4,6-Dinitro-2-methylphenol	<0.77		0.77	0.31	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
4-Bromophenyl phenyl ether	<0.19		0.19	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
4-Chloro-3-methylphenol	<0.38		0.38	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
4-Chloroaniline	<0.77		0.77	0.18	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
4-Chlorophenyl phenyl ether	<0.19		0.19	0.044	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
4-Nitroaniline	<0.38		0.38	0.16	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
4-Nitrophenol	<0.77		0.77	0.36	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Acenaphthene</b>	<b>0.10</b>		0.038	0.0068	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Acenaphthylene</b>	<b>0.079</b>		0.038	0.0050	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Anthracene</b>	<b>0.36</b>		0.038	0.0063	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Benzo[a]anthracene</b>	<b>1.3</b>		0.038	0.0051	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Benzo[a]pyrene</b>	<b>1.3</b>		0.038	0.0074	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Benzo[b]fluoranthene</b>	<b>1.4</b>		0.038	0.0082	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Benzo[g,h,i]perylene</b>	<b>0.55</b>		0.038	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Benzo[k]fluoranthene</b>	<b>0.98</b>		0.038	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Bis(2-chloroethoxy)methane	<0.19		0.19	0.039	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Bis(2-chloroethyl)ether	<0.19	*	0.19	0.057	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.095</b>	<b>J</b>	0.19	0.069	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Butyl benzyl phthalate	<0.19		0.19	0.072	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Carbazole</b>	<b>0.18</b>	<b>J</b>	0.19	0.095	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Chrysene</b>	<b>1.4</b>		0.038	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Dibenz(a,h)anthracene</b>	<b>0.24</b>		0.038	0.0073	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Dibenzofuran</b>	<b>0.059</b>	<b>J</b>	0.19	0.044	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Diethyl phthalate	<0.19		0.19	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Dimethyl phthalate	<0.19		0.19	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Di-n-butyl phthalate	<0.19		0.19	0.058	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Di-n-octyl phthalate	<0.19		0.19	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Fluorene</b>	<b>0.095</b>		0.038	0.0053	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Hexachlorobenzene	<0.077		0.077	0.0088	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Hexachlorobutadiene	<0.19		0.19	0.060	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Hexachlorocyclopentadiene	<0.77	*	0.77	0.22	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Hexachloroethane	<0.19		0.19	0.058	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.54</b>		0.038	0.0098	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1

Euofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-1**

**Lab Sample ID: 500-174684-18**

Date Collected: 12/05/19 12:40

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	<0.19		0.19	0.043	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Naphthalene</b>	<b>0.039</b>		0.038	0.0058	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Nitrobenzene	<0.038		0.038	0.0095	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
N-Nitrosodi-n-propylamine	<0.077		0.077	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
N-Nitrosodiphenylamine	<0.19		0.19	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Pentachlorophenol	<0.77		0.77	0.61	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Phenanthrene</b>	<b>1.5</b>		0.038	0.0053	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Phenol	<0.19		0.19	0.084	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
<b>Pyrene</b>	<b>2.3</b>		0.038	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 18:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	98		31 - 143				12/13/19 15:56	12/16/19 18:14	1
2-Fluorobiphenyl	94		43 - 145				12/13/19 15:56	12/16/19 18:14	1
2-Fluorophenol	53		31 - 166				12/13/19 15:56	12/16/19 18:14	1
Nitrobenzene-d5	72		37 - 147				12/13/19 15:56	12/16/19 18:14	1
Phenol-d5	62		30 - 153				12/13/19 15:56	12/16/19 18:14	1
Terphenyl-d14	93		42 - 157				12/13/19 15:56	12/16/19 18:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluoranthene</b>	<b>2.5</b>		0.19	0.035	mg/Kg	☼	12/13/19 15:56	12/17/19 18:00	5

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>1.0</b>	J	1.1	0.22	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Arsenic</b>	<b>7.7</b>		0.57	0.19	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Barium</b>	<b>91</b>		0.57	0.065	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Beryllium</b>	<b>0.60</b>		0.23	0.053	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Boron</b>	<b>19</b>	B	2.8	0.26	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Cadmium</b>	<b>0.70</b>	B	0.11	0.020	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Calcium</b>	<b>93000</b>	B	110	19	mg/Kg	☼	12/11/19 18:03	12/13/19 12:38	10
<b>Chromium</b>	<b>13</b>		0.57	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Cobalt</b>	<b>7.6</b>		0.28	0.074	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Copper</b>	<b>52</b>		0.57	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Iron</b>	<b>20000</b>	B ^	11	5.9	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Lead</b>	<b>210</b>		0.28	0.13	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Magnesium</b>	<b>50000</b>	B	57	28	mg/Kg	☼	12/11/19 18:03	12/13/19 12:38	10
<b>Manganese</b>	<b>310</b>		0.57	0.082	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Nickel</b>	<b>21</b>		0.57	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Potassium</b>	<b>2000</b>		28	10	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Selenium</b>	<b>0.40</b>	J B	0.57	0.33	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Silver</b>	<b>1.8</b>		0.28	0.073	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Sodium</b>	<b>340</b>		57	8.4	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
Thallium	<0.57		0.57	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Vanadium</b>	<b>17</b>		0.28	0.067	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	1
<b>Zinc</b>	<b>170</b>		1.1	0.50	mg/Kg	☼	12/11/19 18:03	12/12/19 21:07	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		12/12/19 15:24	12/13/19 22:24	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-1**

**Lab Sample ID: 500-174684-18**

Date Collected: 12/05/19 12:40

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 86.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:24	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:24	1
<b>Boron</b>	<b>0.065</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:24	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		12/12/19 15:24	12/13/19 22:24	1
<b>Calcium</b>	<b>25</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:24	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:24	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:24	1
<b>Iron</b>	<b>1.0</b>		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:24	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:24	1
Manganese	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:24	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:24	1
<b>Potassium</b>	<b>2.6</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:24	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:24	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:24	1
<b>Zinc</b>	<b>0.029</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:24	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		12/12/19 15:24	12/13/19 15:10	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 15:10	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		12/13/19 10:05	12/16/19 09:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.098</b>		0.018	0.0059	mg/Kg	☼	12/12/19 14:20	12/13/19 10:06	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.57		0.57	0.29	mg/Kg	☼	12/16/19 10:25	12/16/19 16:14	1
<b>pH</b>	<b>8.1</b>		0.2	0.2	SU			12/12/19 15:49	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-2**

**Lab Sample ID: 500-174684-19**

Date Collected: 12/05/19 12:45

Matrix: Solid

Date Received: 12/06/19 11:15

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	<0.0018		0.0018	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
1,1,2,2-Tetrachloroethane	<0.0018	*	0.0018	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
1,1,2-Trichloroethane	<0.0018		0.0018	0.00076	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
1,1-Dichloroethane	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
1,1-Dichloroethene	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
1,2-Dichloroethane	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
1,2-Dichloropropane	<0.0018		0.0018	0.00046	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
1,3-Dichloropropene, Total	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
2-Butanone (MEK)	<0.0044		0.0044	0.0020	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
2-Hexanone	<0.0044		0.0044	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
4-Methyl-2-pentanone (MIBK)	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Acetone	<0.018		0.018	0.0077	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Benzene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Bromodichloromethane	<0.0018		0.0018	0.00036	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Bromoform	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Bromomethane	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Carbon disulfide	<0.0044		0.0044	0.00092	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Carbon tetrachloride	<0.0018		0.0018	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Chlorobenzene	<0.0018		0.0018	0.00065	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Chloroethane	<0.0044		0.0044	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Chloroform	<0.0018		0.0018	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Chloromethane	<0.0044	*	0.0044	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
cis-1,2-Dichloroethene	<0.0018		0.0018	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
cis-1,3-Dichloropropene	<0.0018		0.0018	0.00053	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Dibromochloromethane	<0.0018		0.0018	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Ethylbenzene	<0.0018		0.0018	0.00085	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Methyl tert-butyl ether	<0.0018		0.0018	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Methylene Chloride	<0.0044		0.0044	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Styrene	<0.0018		0.0018	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Tetrachloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Toluene	<0.0018		0.0018	0.00045	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
trans-1,2-Dichloroethene	<0.0018		0.0018	0.00079	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
trans-1,3-Dichloropropene	<0.0018		0.0018	0.00062	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Trichloroethene	<0.0018		0.0018	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Vinyl chloride	<0.0018		0.0018	0.00078	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1
Xylenes, Total	<0.0035		0.0035	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 134	12/07/19 07:50	12/16/19 17:00	1
4-Bromofluorobenzene (Surr)	120	*	75 - 131	12/07/19 07:50	12/16/19 17:00	1
Dibromofluoromethane	96		75 - 126	12/07/19 07:50	12/16/19 17:00	1
Toluene-d8 (Surr)	100		75 - 124	12/07/19 07:50	12/16/19 17:00	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	☼	12/13/19 15:56	12/16/19 17:06	1
1,2-Dichlorobenzene	<0.21		0.21	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
1,3-Dichlorobenzene	<0.21		0.21	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
1,4-Dichlorobenzene	<0.21		0.21	0.053	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2,2'-oxybis[1-chloropropane]	<0.21		0.21	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-2**

**Lab Sample ID: 500-174684-19**

Date Collected: 12/05/19 12:45

Matrix: Solid

Date Received: 12/06/19 11:15

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	0.095	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2,4,6-Trichlorophenol	<0.41		0.41	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2,4-Dichlorophenol	<0.41		0.41	0.099	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2,4-Dimethylphenol	<0.41		0.41	0.16	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2,4-Dinitrophenol	<0.84		0.84	0.73	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2,4-Dinitrotoluene	<0.21		0.21	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2,6-Dinitrotoluene	<0.21		0.21	0.082	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2-Chloronaphthalene	<0.21		0.21	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2-Chlorophenol	<0.21		0.21	0.071	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2-Methylnaphthalene	<0.084	*	0.084	0.0077	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2-Methylphenol	<0.21		0.21	0.067	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2-Nitroaniline	<0.21		0.21	0.056	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
2-Nitrophenol	<0.41		0.41	0.099	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
3 & 4 Methylphenol	<0.21		0.21	0.070	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
3,3'-Dichlorobenzidine	<0.21		0.21	0.058	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
3-Nitroaniline	<0.41		0.41	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
4,6-Dinitro-2-methylphenol	<0.84		0.84	0.34	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
4-Bromophenyl phenyl ether	<0.21		0.21	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
4-Chloro-3-methylphenol	<0.41		0.41	0.14	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
4-Chloroaniline	<0.84		0.84	0.20	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
4-Chlorophenyl phenyl ether	<0.21		0.21	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
4-Nitroaniline	<0.41		0.41	0.17	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
4-Nitrophenol	<0.84		0.84	0.40	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Acenaphthene	<0.041		0.041	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Acenaphthylene	<0.041		0.041	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Anthracene	<0.041		0.041	0.0070	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Benzo[a]anthracene	<0.041		0.041	0.0056	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Benzo[a]pyrene	<0.041		0.041	0.0081	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Benzo[b]fluoranthene	<0.041		0.041	0.0090	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Benzo[g,h,i]perylene	<0.041		0.041	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Benzo[k]fluoranthene	<0.041		0.041	0.012	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Bis(2-chloroethoxy)methane	<0.21		0.21	0.043	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Bis(2-chloroethyl)ether	<0.21	*	0.21	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Bis(2-ethylhexyl) phthalate	<0.21		0.21	0.076	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Butyl benzyl phthalate	<0.21		0.21	0.079	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Carbazole	<0.21		0.21	0.10	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Chrysene	<0.041		0.041	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Dibenz(a,h)anthracene	<0.041		0.041	0.0081	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Dibenzofuran	<0.21		0.21	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Diethyl phthalate	<0.21		0.21	0.071	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Dimethyl phthalate	<0.21		0.21	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Di-n-butyl phthalate	<0.21		0.21	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Di-n-octyl phthalate	<0.21		0.21	0.068	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Fluoranthene	<0.041		0.041	0.0077	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Fluorene	<0.041		0.041	0.0059	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Hexachlorobenzene	<0.084		0.084	0.0097	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Hexachlorobutadiene	<0.21		0.21	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Hexachlorocyclopentadiene	<0.84	*	0.84	0.24	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Hexachloroethane	<0.21		0.21	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-2**

**Lab Sample ID: 500-174684-19**

Date Collected: 12/05/19 12:45

Matrix: Solid

Date Received: 12/06/19 11:15

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	☼	12/13/19 15:56	12/16/19 17:06	1
Isophorone	<0.21		0.21	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Naphthalene	<0.041		0.041	0.0064	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Nitrobenzene	<0.041		0.041	0.010	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
N-Nitrosodi-n-propylamine	<0.084		0.084	0.051	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
N-Nitrosodiphenylamine	<0.21		0.21	0.049	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Pentachlorophenol	<0.84		0.84	0.67	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
<b>Phenanthrene</b>	<b>0.14</b>		0.041	0.0058	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
Phenol	<0.21		0.21	0.093	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	1
<b>Pyrene</b>	<b>0.020</b>	<b>J</b>	0.041	0.0083	mg/Kg	☼	12/13/19 15:56	12/16/19 17:06	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	81		31 - 143				12/13/19 15:56	12/16/19 17:06	1
2-Fluorobiphenyl	95		43 - 145				12/13/19 15:56	12/16/19 17:06	1
2-Fluorophenol	61		31 - 166				12/13/19 15:56	12/16/19 17:06	1
Nitrobenzene-d5	74		37 - 147				12/13/19 15:56	12/16/19 17:06	1
Phenol-d5	67		30 - 153				12/13/19 15:56	12/16/19 17:06	1
Terphenyl-d14	96		42 - 157				12/13/19 15:56	12/16/19 17:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.53</b>	<b>J</b>	1.2	0.24	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Arsenic</b>	<b>10</b>		0.61	0.21	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Barium</b>	<b>32</b>		0.61	0.070	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Beryllium</b>	<b>0.90</b>		0.25	0.057	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Boron</b>	<b>23</b>	<b>B</b>	3.1	0.29	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Cadmium</b>	<b>0.15</b>	<b>B</b>	0.12	0.022	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Calcium</b>	<b>35000</b>	<b>B</b>	12	2.1	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Chromium</b>	<b>18</b>		0.61	0.30	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Cobalt</b>	<b>16</b>		0.31	0.080	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Copper</b>	<b>46</b>		0.61	0.17	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Iron</b>	<b>23000</b>	<b>B ^</b>	12	6.4	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Lead</b>	<b>17</b>		0.31	0.14	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Magnesium</b>	<b>21000</b>	<b>B</b>	6.1	3.0	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Manganese</b>	<b>330</b>		0.61	0.089	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Nickel</b>	<b>43</b>		0.61	0.18	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Potassium</b>	<b>4500</b>		31	11	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Selenium</b>	<b>0.75</b>	<b>B</b>	0.61	0.36	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Silver</b>	<b>2.2</b>		0.31	0.079	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Sodium</b>	<b>410</b>		61	9.1	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Thallium</b>	<b>0.86</b>		0.61	0.31	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Vanadium</b>	<b>24</b>		0.31	0.072	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	1
<b>Zinc</b>	<b>58</b>		1.2	0.54	mg/Kg	☼	12/11/19 18:03	12/12/19 21:19	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		12/12/19 15:24	12/13/19 22:36	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:36	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:36	1
<b>Boron</b>	<b>0.072</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:36	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-2**

**Lab Sample ID: 500-174684-19**

Date Collected: 12/05/19 12:45

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 78.8

**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		12/12/19 15:24	12/13/19 22:36	1
<b>Calcium</b>	<b>17</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:36	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:36	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:36	1
Iron	<0.40		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:36	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:36	1
<b>Manganese</b>	<b>0.029</b>		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:36	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:36	1
<b>Potassium</b>	<b>4.1</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:36	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:36	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:36	1
<b>Zinc</b>	<b>0.028</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:36	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		12/12/19 15:24	12/13/19 15:12	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 15:12	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		12/13/19 10:05	12/16/19 09:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.019</b>	<b>J</b>	0.020	0.0067	mg/Kg	☼	12/12/19 14:20	12/13/19 10:08	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.60		0.60	0.30	mg/Kg	☼	12/16/19 10:25	12/16/19 16:15	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/12/19 15:52	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-3**

**Lab Sample ID: 500-174684-20**

Date Collected: 12/05/19 12:50

Matrix: Solid

Date Received: 12/06/19 11:15

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	<0.0016		0.0016	0.00053	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
1,1,2,2-Tetrachloroethane	<0.0016		0.0016	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
1,1,2-Trichloroethane	<0.0016		0.0016	0.00068	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
1,1-Dichloroethane	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
1,1-Dichloroethene	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
1,2-Dichloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
1,2-Dichloropropane	<0.0016		0.0016	0.00041	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
1,3-Dichloropropene, Total	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
2-Butanone (MEK)	<0.0040		0.0040	0.0018	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
2-Hexanone	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
4-Methyl-2-pentanone (MIBK)	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
<b>Acetone</b>	<b>0.019</b>		0.016	0.0069	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Benzene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Bromodichloromethane	<0.0016		0.0016	0.00032	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Bromoform	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Bromomethane	<0.0040		0.0040	0.0015	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Carbon disulfide	<0.0040		0.0040	0.00083	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Carbon tetrachloride	<0.0016		0.0016	0.00046	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Chlorobenzene	<0.0016		0.0016	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Chloroethane	<0.0040		0.0040	0.0012	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Chloroform	<0.0016		0.0016	0.00055	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Chloromethane	<0.0040 *		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
cis-1,2-Dichloroethene	<0.0016		0.0016	0.00044	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
cis-1,3-Dichloropropene	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Dibromochloromethane	<0.0016		0.0016	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Ethylbenzene	<0.0016		0.0016	0.00076	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Methyl tert-butyl ether	<0.0016		0.0016	0.00047	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Methylene Chloride	<0.0040		0.0040	0.0016	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Styrene	<0.0016		0.0016	0.00048	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Tetrachloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Toluene	<0.0016		0.0016	0.00040	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
trans-1,2-Dichloroethene	<0.0016		0.0016	0.00070	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
trans-1,3-Dichloropropene	<0.0016		0.0016	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Trichloroethene	<0.0016		0.0016	0.00054	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Vinyl chloride	<0.0016		0.0016	0.00070	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1
Xylenes, Total	<0.0032		0.0032	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	12/07/19 07:50	12/16/19 17:26	1
4-Bromofluorobenzene (Surr)	111		75 - 131	12/07/19 07:50	12/16/19 17:26	1
Dibromofluoromethane	96		75 - 126	12/07/19 07:50	12/16/19 17:26	1
Toluene-d8 (Surr)	98		75 - 124	12/07/19 07:50	12/16/19 17:26	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	☼	12/13/19 15:56	12/16/19 17:29	1
1,2-Dichlorobenzene	<0.20		0.20	0.047	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
1,3-Dichlorobenzene	<0.20		0.20	0.044	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
1,4-Dichlorobenzene	<0.20		0.20	0.050	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.045	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-3**

**Lab Sample ID: 500-174684-20**

Date Collected: 12/05/19 12:50

Matrix: Solid

Date Received: 12/06/19 11:15

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	0.089	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2,4,6-Trichlorophenol	<0.39		0.39	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2,4-Dichlorophenol	<0.39		0.39	0.093	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2,4-Dimethylphenol	<0.39		0.39	0.15	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2,4-Dinitrophenol	<0.79		0.79	0.69	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2,4-Dinitrotoluene	<0.20		0.20	0.062	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2,6-Dinitrotoluene	<0.20		0.20	0.077	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2-Chloronaphthalene	<0.20		0.20	0.043	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2-Chlorophenol	<0.20		0.20	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
<b>2-Methylnaphthalene</b>	<b>0.095</b>	*	0.079	0.0072	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2-Methylphenol	<0.20		0.20	0.063	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2-Nitroaniline	<0.20		0.20	0.052	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
2-Nitrophenol	<0.39		0.39	0.092	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
3 & 4 Methylphenol	<0.20		0.20	0.065	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.055	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
3-Nitroaniline	<0.39		0.39	0.12	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
4,6-Dinitro-2-methylphenol	<0.79		0.79	0.31	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.051	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
4-Chloro-3-methylphenol	<0.39		0.39	0.13	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
4-Chloroaniline	<0.79		0.79	0.18	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
4-Nitroaniline	<0.39		0.39	0.16	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
4-Nitrophenol	<0.79		0.79	0.37	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Acenaphthene	<0.039		0.039	0.0070	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Acenaphthylene	<0.039		0.039	0.0051	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Anthracene	<0.039		0.039	0.0065	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Benzo[a]anthracene	<0.039		0.039	0.0052	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Benzo[a]pyrene	<0.039		0.039	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Benzo[b]fluoranthene	<0.039		0.039	0.0084	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Benzo[g,h,i]perylene	<0.039		0.039	0.013	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Benzo[k]fluoranthene	<0.039		0.039	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.040	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.058	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.071	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Butyl benzyl phthalate	<0.20		0.20	0.074	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Carbazole	<0.20		0.20	0.097	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Chrysene	<0.039		0.039	0.011	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Dibenz(a,h)anthracene	<0.039		0.039	0.0075	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Dibenzofuran	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Diethyl phthalate	<0.20		0.20	0.066	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Dimethyl phthalate	<0.20		0.20	0.051	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Di-n-butyl phthalate	<0.20		0.20	0.059	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Di-n-octyl phthalate	<0.20		0.20	0.064	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Fluoranthene	<0.039		0.039	0.0072	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Fluorene	<0.039		0.039	0.0055	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Hexachlorobenzene	<0.079		0.079	0.0090	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Hexachlorobutadiene	<0.20		0.20	0.061	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Hexachlorocyclopentadiene	<0.79	*	0.79	0.22	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Hexachloroethane	<0.20		0.20	0.059	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-3**

**Lab Sample ID: 500-174684-20**

Date Collected: 12/05/19 12:50

Matrix: Solid

Date Received: 12/06/19 11:15

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	☼	12/13/19 15:56	12/16/19 17:29	1
Isophorone	<0.20		0.20	0.044	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Naphthalene	<0.039		0.039	0.0060	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Nitrobenzene	<0.039		0.039	0.0097	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
N-Nitrosodi-n-propylamine	<0.079		0.079	0.048	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
N-Nitrosodiphenylamine	<0.20		0.20	0.046	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Pentachlorophenol	<0.79		0.79	0.63	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
<b>Phenanthrene</b>	<b>0.22</b>		0.039	0.0054	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Phenol	<0.20		0.20	0.087	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Pyrene	<0.039		0.039	0.0077	mg/Kg	☼	12/13/19 15:56	12/16/19 17:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	70		31 - 143				12/13/19 15:56	12/16/19 17:29	1
2-Fluorobiphenyl	95		43 - 145				12/13/19 15:56	12/16/19 17:29	1
2-Fluorophenol	51		31 - 166				12/13/19 15:56	12/16/19 17:29	1
Nitrobenzene-d5	66		37 - 147				12/13/19 15:56	12/16/19 17:29	1
Phenol-d5	58		30 - 153				12/13/19 15:56	12/16/19 17:29	1
Terphenyl-d14	97		42 - 157				12/13/19 15:56	12/16/19 17:29	1

## Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.42</b>	<b>J</b>	1.1	0.22	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Arsenic</b>	<b>12</b>		0.56	0.19	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Barium</b>	<b>33</b>		0.56	0.063	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Beryllium</b>	<b>0.84</b>		0.22	0.052	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Boron</b>	<b>23</b>	<b>B</b>	2.8	0.26	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Cadmium</b>	<b>0.18</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Calcium</b>	<b>29000</b>	<b>B</b>	11	1.9	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Chromium</b>	<b>16</b>		0.56	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Cobalt</b>	<b>18</b>		0.28	0.073	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Copper</b>	<b>49</b>		0.56	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Iron</b>	<b>24000</b>	<b>B ^</b>	11	5.8	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Lead</b>	<b>20</b>		0.28	0.13	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Magnesium</b>	<b>18000</b>	<b>B</b>	5.6	2.8	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Manganese</b>	<b>320</b>		0.56	0.081	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Nickel</b>	<b>48</b>		0.56	0.16	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Potassium</b>	<b>4100</b>		28	9.8	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Selenium</b>	<b>0.98</b>	<b>B</b>	0.56	0.33	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Silver</b>	<b>1.9</b>		0.28	0.072	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Sodium</b>	<b>210</b>		56	8.2	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Thallium</b>	<b>1.1</b>		0.56	0.28	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Vanadium</b>	<b>23</b>		0.28	0.066	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	1
<b>Zinc</b>	<b>58</b>		1.1	0.49	mg/Kg	☼	12/11/19 18:03	12/12/19 21:23	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		12/12/19 15:24	12/13/19 22:40	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:24	12/13/19 22:40	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:24	12/13/19 22:40	1
<b>Boron</b>	<b>0.065</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:24	12/13/19 22:40	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-3**

**Lab Sample ID: 500-174684-20**

Date Collected: 12/05/19 12:50

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 84.1

## 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		12/12/19 15:24	12/13/19 22:40	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:40	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:40	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:40	1
Iron	<0.40		0.40	0.20	mg/L		12/12/19 15:24	12/13/19 22:40	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:24	12/13/19 22:40	1
<b>Manganese</b>	<b>0.019</b>	<b>J</b>	0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:40	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:40	1
<b>Potassium</b>	<b>2.0</b>	<b>J</b>	2.5	0.50	mg/L		12/12/19 15:24	12/13/19 22:40	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:24	12/13/19 22:40	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:24	12/13/19 22:40	1
<b>Zinc</b>	<b>0.028</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:24	12/13/19 22:40	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		12/12/19 15:24	12/13/19 15:15	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:24	12/13/19 15:15	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		12/13/19 10:05	12/16/19 09:17	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.028</b>		0.018	0.0060	mg/Kg	☼	12/12/19 14:20	12/13/19 10:10	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.41		0.41	0.21	mg/Kg	☼	12/16/19 10:25	12/16/19 16:15	1
<b>pH</b>	<b>7.8</b>		0.2	0.2	SU			12/12/19 15:57	1

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-4**

**Lab Sample ID: 500-174684-21**

**Date Collected: 12/05/19 12:55**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

**Percent Solids: 81.9**

**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	0.00058	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
1,1,2-Trichloroethane	<0.0017		0.0017	0.00075	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
1,1-Dichloroethane	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
1,1-Dichloroethene	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
1,2-Dichloroethane	<0.0043		0.0043	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
1,2-Dichloropropane	<0.0017		0.0017	0.00045	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
1,3-Dichloropropene, Total	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
2-Butanone (MEK)	<0.0043		0.0043	0.0019	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
2-Hexanone	<0.0043		0.0043	0.0014	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
<b>Acetone</b>	<b>0.014</b>	<b>J</b>	0.017	0.0076	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Benzene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Bromodichloromethane	<0.0017		0.0017	0.00035	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Bromoform	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Bromomethane	<0.0043		0.0043	0.0016	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Carbon disulfide	<0.0043		0.0043	0.00090	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Carbon tetrachloride	<0.0017		0.0017	0.00050	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Chlorobenzene	<0.0017		0.0017	0.00064	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Chloroethane	<0.0043		0.0043	0.0013	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Chloroform	<0.0017		0.0017	0.00060	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Chloromethane	<0.0043	*	0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
cis-1,2-Dichloroethene	<0.0017		0.0017	0.00049	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
cis-1,3-Dichloropropene	<0.0017		0.0017	0.00052	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Dibromochloromethane	<0.0017		0.0017	0.00057	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Ethylbenzene	<0.0017		0.0017	0.00083	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Methyl tert-butyl ether	<0.0017		0.0017	0.00051	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Methylene Chloride	<0.0043		0.0043	0.0017	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Styrene	<0.0017		0.0017	0.00053	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Tetrachloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Toluene	<0.0017		0.0017	0.00044	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
trans-1,2-Dichloroethene	<0.0017		0.0017	0.00077	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
trans-1,3-Dichloropropene	<0.0017		0.0017	0.00061	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Trichloroethene	<0.0017		0.0017	0.00059	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Vinyl chloride	<0.0017		0.0017	0.00077	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1
Xylenes, Total	<0.0035		0.0035	0.00056	mg/Kg	☼	12/07/19 07:50	12/16/19 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 134	12/07/19 07:50	12/16/19 17:51	1
4-Bromofluorobenzene (Surr)	98		75 - 131	12/07/19 07:50	12/16/19 17:51	1
Dibromofluoromethane	95		75 - 126	12/07/19 07:50	12/16/19 17:51	1
Toluene-d8 (Surr)	95		75 - 124	12/07/19 07:50	12/16/19 17:51	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	☼	12/12/19 19:32	12/13/19 15:46	1
1,2-Dichlorobenzene	<0.20		0.20	0.048	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
1,3-Dichlorobenzene	<0.20		0.20	0.045	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
1,4-Dichlorobenzene	<0.20		0.20	0.051	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2,2'-oxybis[1-chloropropane]	<0.20		0.20	0.046	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-4**

**Lab Sample ID: 500-174684-21**

Date Collected: 12/05/19 12:55

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.9

**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	☼	12/12/19 19:32	12/13/19 15:46	1
2,4,6-Trichlorophenol	<0.40		0.40	0.14	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2,4-Dichlorophenol	<0.40		0.40	0.094	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2,4-Dimethylphenol	<0.40		0.40	0.15	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2,4-Dinitrophenol	<0.80		0.80	0.70	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2,4-Dinitrotoluene	<0.20		0.20	0.063	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2,6-Dinitrotoluene	<0.20		0.20	0.078	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2-Chloronaphthalene	<0.20		0.20	0.044	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2-Chlorophenol	<0.20		0.20	0.068	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
<b>2-Methylnaphthalene</b>	<b>0.060</b>	<b>J</b>	0.080	0.0073	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2-Methylphenol	<0.20		0.20	0.064	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2-Nitroaniline	<0.20		0.20	0.054	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
2-Nitrophenol	<0.40		0.40	0.094	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
3 & 4 Methylphenol	<0.20		0.20	0.066	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
3,3'-Dichlorobenzidine	<0.20		0.20	0.056	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
3-Nitroaniline	<0.40		0.40	0.12	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
4,6-Dinitro-2-methylphenol	<0.80		0.80	0.32	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
4-Bromophenyl phenyl ether	<0.20		0.20	0.052	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
4-Chloro-3-methylphenol	<0.40		0.40	0.14	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
4-Chloroaniline	<0.80		0.80	0.19	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
4-Chlorophenyl phenyl ether	<0.20		0.20	0.046	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
4-Nitroaniline	<0.40		0.40	0.17	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
4-Nitrophenol	<0.80		0.80	0.38	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Acenaphthene	<0.040		0.040	0.0071	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Acenaphthylene	<0.040		0.040	0.0052	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
<b>Anthracene</b>	<b>0.0070</b>	<b>J</b>	0.040	0.0066	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Benzo[a]anthracene	<0.040		0.040	0.0054	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Benzo[a]pyrene	<0.040		0.040	0.0077	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Benzo[b]fluoranthene	<0.040		0.040	0.0086	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Benzo[g,h,i]perylene	<0.040		0.040	0.013	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Benzo[k]fluoranthene	<0.040		0.040	0.012	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Bis(2-chloroethoxy)methane	<0.20		0.20	0.041	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Bis(2-chloroethyl)ether	<0.20	*	0.20	0.060	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Bis(2-ethylhexyl) phthalate	<0.20		0.20	0.073	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Butyl benzyl phthalate	<0.20		0.20	0.076	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Carbazole	<0.20		0.20	0.099	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
<b>Chrysene</b>	<b>0.036</b>	<b>J</b>	0.040	0.011	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Dibenz(a,h)anthracene	<0.040		0.040	0.0077	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Dibenzofuran	<0.20		0.20	0.047	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Diethyl phthalate	<0.20		0.20	0.067	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Dimethyl phthalate	<0.20		0.20	0.052	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Di-n-butyl phthalate	<0.20		0.20	0.061	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Di-n-octyl phthalate	<0.20		0.20	0.065	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Fluoranthene	<0.040		0.040	0.0074	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Fluorene	<0.040		0.040	0.0056	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Hexachlorobenzene	<0.080		0.080	0.0092	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Hexachlorobutadiene	<0.20		0.20	0.062	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Hexachlorocyclopentadiene	<0.80	*	0.80	0.23	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Hexachloroethane	<0.20		0.20	0.060	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-4**

**Lab Sample ID: 500-174684-21**

Date Collected: 12/05/19 12:55

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.9

**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	☼	12/12/19 19:32	12/13/19 15:46	1
Isophorone	<0.20		0.20	0.045	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Naphthalene	<0.040		0.040	0.0061	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Nitrobenzene	<0.040		0.040	0.0099	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
N-Nitrosodi-n-propylamine	<0.080		0.080	0.049	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
N-Nitrosodiphenylamine	<0.20		0.20	0.047	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Pentachlorophenol	<0.80		0.80	0.64	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
<b>Phenanthrene</b>	<b>0.12</b>		0.040	0.0055	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Phenol	<0.20		0.20	0.088	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Pyrene	<0.040		0.040	0.0079	mg/Kg	☼	12/12/19 19:32	12/13/19 15:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		31 - 143				12/12/19 19:32	12/13/19 15:46	1
2-Fluorobiphenyl	73		43 - 145				12/12/19 19:32	12/13/19 15:46	1
2-Fluorophenol	39		31 - 166				12/12/19 19:32	12/13/19 15:46	1
Nitrobenzene-d5	53		37 - 147				12/12/19 19:32	12/13/19 15:46	1
Phenol-d5	46		30 - 153				12/12/19 19:32	12/13/19 15:46	1
Terphenyl-d14	82		42 - 157				12/12/19 19:32	12/13/19 15:46	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	0.22	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Arsenic</b>	<b>7.4</b>		0.57	0.19	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Barium</b>	<b>42</b>		0.57	0.065	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Beryllium</b>	<b>0.59</b>		0.23	0.053	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Boron</b>	<b>16</b>	<b>B</b>	2.8	0.26	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Cadmium</b>	<b>0.14</b>	<b>B</b>	0.11	0.020	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Calcium</b>	<b>60000</b>	<b>B</b>	110	19	mg/Kg	☼	12/11/19 18:06	12/13/19 12:36	10
<b>Chromium</b>	<b>15</b>	<b>B</b>	0.57	0.28	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Cobalt</b>	<b>13</b>		0.28	0.074	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Copper</b>	<b>30</b>		0.57	0.16	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Iron</b>	<b>20000</b>		12	6.3	mg/Kg	☼	12/13/19 18:01	12/16/19 17:27	1
<b>Lead</b>	<b>13</b>		0.28	0.13	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Magnesium</b>	<b>25000</b>		5.7	2.8	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Manganese</b>	<b>370</b>	<b>B</b>	0.57	0.082	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Nickel</b>	<b>34</b>		0.57	0.17	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Potassium</b>	<b>2900</b>		28	10	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Selenium</b>	<b>0.52</b>	<b>J B</b>	0.57	0.33	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Silver</b>	<b>2.1</b>		0.28	0.073	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Sodium</b>	<b>220</b>		57	8.4	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Thallium</b>	<b>0.39</b>	<b>J</b>	0.57	0.28	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Vanadium</b>	<b>18</b>		0.28	0.067	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	1
<b>Zinc</b>	<b>50</b>		1.1	0.50	mg/Kg	☼	12/11/19 18:06	12/12/19 19:03	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		12/12/19 15:27	12/13/19 23:07	1
Barium	<0.50		0.50	0.050	mg/L		12/12/19 15:27	12/13/19 23:07	1
Beryllium	<0.0040		0.0040	0.0040	mg/L		12/12/19 15:27	12/13/19 23:07	1
<b>Boron</b>	<b>0.077</b>	<b>J</b>	0.10	0.050	mg/L		12/12/19 15:27	12/13/19 23:07	1

Eurofins TestAmerica, Chicago

# Client Sample Results

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

**Client Sample ID: 2615V2-1-B40-4**

**Lab Sample ID: 500-174684-21**

Date Collected: 12/05/19 12:55

Matrix: Solid

Date Received: 12/06/19 11:15

Percent Solids: 81.9

## 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		12/12/19 15:27	12/13/19 23:07	1
<b>Calcium</b>	<b>16</b>		2.5	0.50	mg/L		12/12/19 15:27	12/13/19 23:07	1
Chromium	<0.025		0.025	0.010	mg/L		12/12/19 15:27	12/13/19 23:07	1
Cobalt	<0.025		0.025	0.010	mg/L		12/12/19 15:27	12/13/19 23:07	1
<b>Iron</b>	<b>0.59</b>		0.40	0.20	mg/L		12/12/19 15:27	12/13/19 23:07	1
Lead	<0.0075		0.0075	0.0075	mg/L		12/12/19 15:27	12/13/19 23:07	1
<b>Manganese</b>	<b>0.022</b>	<b>J</b>	0.025	0.010	mg/L		12/12/19 15:27	12/13/19 23:07	1
Nickel	<0.025		0.025	0.010	mg/L		12/12/19 15:27	12/13/19 23:07	1
<b>Potassium</b>	<b>2.0</b>	<b>J</b>	2.5	0.50	mg/L		12/12/19 15:27	12/13/19 23:07	1
Selenium	<0.050		0.050	0.020	mg/L		12/12/19 15:27	12/13/19 23:07	1
Silver	<0.025		0.025	0.010	mg/L		12/12/19 15:27	12/13/19 23:07	1
<b>Zinc</b>	<b>0.028</b>	<b>J B</b>	0.50	0.020	mg/L		12/12/19 15:27	12/13/19 23:07	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		12/12/19 15:27	12/13/19 15:37	1
Thallium	<0.0020		0.0020	0.0020	mg/L		12/12/19 15:27	12/13/19 15:37	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		12/13/19 10:05	12/16/19 07:54	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.020</b>		0.020	0.0066	mg/Kg	☼	12/12/19 14:20	12/13/19 07:21	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.54	F1	0.54	0.27	mg/Kg	☼	12/12/19 10:40	12/12/19 15:24	1
<b>pH</b>	<b>7.7</b>		0.2	0.2	SU			12/12/19 16:02	1

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	ISTD response or retention time outside acceptable 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.
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.
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.

### 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.
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.

### 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)

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

## Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Accreditation/Certification Summary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-1

## 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

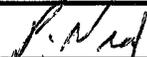
## CHAIN OF CUSTODY RECORD

<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>AE7-88A</u> Project No.: <u>PTB/WO:184-006/38A</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>M. Dima Hco</u>	COC No.: <u>1</u> of <u>4</u> Lab Job No.: <u>500-174684</u> Sample Temp: <u>19, 25, 39, 21</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													
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	2615V2-1-B26-1	12-5	0950	S	X	X					X	X	X	X	X			
2	2615V2-1-B26-2		0955															
3	2615V2-1-B26-2 Duff		1000															
4	2615V2-1-B27-1		1055															
5	2615V2-1-B27-2		1100															
6	2615V2-1-B27-3		1105															
7	2615V2-1-B27-4		1110															
8	2615V2-1-B37		1205															
9	2615V2-1-B36-1		1355															
10	2615V2-1-B36-2		1400		↓	↓					↓	↓	↓	↓	↓			
11	2615V2-1-B36-3		1405		↓	↓					↓	↓	↓	↓	↓			
12	2615V2-1-B36-4	↓	1410		↓	↓					↓	↓	↓	↓	↓			

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

				Date/Time		Received by:		Date/Time	
Relinquished by:		Date/Time	12/5/19	1705	Received by:		Date/Time	12/5/19	Stoorn
Relinquished by:		Date/Time	12/6/19	10:15	Received by:		Date/Time	12/6/19	10:15
Relinquished by:		Date/Time	12/6/19	11:15	Received by:		Date/Time	12/6/19	11:15





# CHAIN OF CUSTODY RECORD

<b>Client Contact</b>	<b>Laboratory</b>	Project Name: <u>ACTJ-28A</u>	COC No.: <u>2</u> of <u>4</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:184-006/28A</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	Lab Job No.: <u>500-174684</u> Sample Temp: <u>19, 25, 39, 2.1</u>
<b>Special Instructions:</b> 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.		<b>Analyses</b>	

**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	ANALYSES												Comments	
					VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization		
13	2615V2-1-B41-1	12-5	1215	S	X	X						X	X	X	X	X		
14	2615V2-1-B41-2		1220															
15	2615V2-1-B41-3		1225															
16	2615V2-1-B41-3 <sup>dup</sup>		1230															
17	2615V2-1-B41-4		1235															
18	2615V2-1-B40-1		1240															
19	2615V2-1-B40-2		1245															
20	2615V2-1-B40-3		1250															
21	2615V2-1-B40-4		1255															
22	TRX Blank #1	12/5/19	—		X													

Relinquished by:	Date/Time: 12/5/19 1700	Received by:	Date/Time: 12/5/19 5:00pm
Relinquished by:	Date/Time: 12/6/19 10:15	Received by:	Date/Time: 12/6/19 10:15
Relinquished by:	Date/Time: 12/6/19 11:15	Received by:	Date/Time: 12/6/19 11:15



## ANALYTICAL REPORT

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

Laboratory Job ID: 500-174684-2  
Client Project/Site: IDOT - AE7-028

**For:**

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

Attn: Ms. Colleen Grey



Authorized for release by:  
1/7/2020 9:11:41 AM

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 - AE7-028

Job ID: 500-174684-2

**Client Sample ID: 2615V2-1-B40-1**

**Lab Sample ID: 500-174684-18**

**Date Collected: 12/05/19 12:40**

**Matrix: Solid**

**Date Received: 12/06/19 11:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.023		0.0075	0.0075	mg/L		12/18/19 14:53	01/06/20 14:10	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# Definitions/Glossary

Client: Andrews Engineering Inc.  
Project/Site: IDOT - AE7-028

Job ID: 500-174684-2

## 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 - AE7-028

Job ID: 500-174684-2

## 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
-----------------	-------------	--------	---------

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13



# CHAIN OF CUSTODY RECORD

<b>Client Contact</b>	<b>Laboratory</b>	Project Name: <u>ACTJ-28A</u>	COC No.: <u>2</u> of <u>4</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: 184-006/28A</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	Lab Job No.: <u>500-174684</u>
<b>Special Instructions:</b> 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.		<b>Analyses</b>	Sample Temp: <u>19, 25, 39, 2.1</u>
		<b>Sampler:</b> <u>M. Amato</u>	<b>Matrix Key:</b> 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	ANALYSES												Comments	
					VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	*** Cyanide	pH	% Solids	Waste Characterization		
13	2615V2-1-B41-1	12-5	1215	S	X	X						X	X	X	X	X		
14	2615V2-1-B41-2		1220															
15	2615V2-1-B41-3		1225															
16	2615V2-1-B41-3 <sup>dup</sup>		1230															
17	2615V2-1-B41-4		1235															
18	2615V2-1-B40-1		1240															
19	2615V2-1-B40-2		1245															
20	2615V2-1-B40-3		1250															
21	2615V2-1-B40-4		1255															
22	TRX Blank #1	12/5/19	—		X													

Relinquished by:	Date/Time: <u>12/5/19 1700</u>	Received by:	Date/Time: <u>12/5/19 5:00pm</u>
Relinquished by:	Date/Time: <u>12/6/19 10:15</u>	Received by:	Date/Time: <u>12/6/19 10:15</u>
Relinquished by: <u>P. Neal</u>	Date/Time: <u>12/6/19 11:15</u>	Received by: <u>Shirley Smith</u>	Date/Time: <u>12/6/19 11:15</u>

